THE EFFECTS ON LOCAL LIVELIHOODS OF A WETLAND DEVELOPMENT SCHEME IN A ZIMBABWEAN VILLAGE:

An ethnographic study

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Cover page designed by author
Picture taken from a wetland farm in Mufiri Ward, Shurugwi District, Zimbabwe

This thesis is dedicated to

my wonderful and loving parents -

Clemence and Beata Mangoma

for giving me life, for raising me, for educating me;

and

for insisting it can be done

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LIST OF ABBREVIATIONS

AGRITEX	Agricultural Technical and Extension Service
AIDS	Acquired Immune Deficiency Syndrome
AREX	Agricultural Research and Extension Services
ARC	Agricultural Research Council
AuSAID	Australian Agency for International Development
CSO	Central Statistical Office
DRSS	Department of Research and Specialist Services
ESAP	Economic Structural Adjustment Programme
GAD	Gender and Development
GMB	Grain Marketing Board
GNU	Government of National Unity
GoZ	Government of Zimbabwe
HIV	Human Immunodeficiency Virus
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IBRFP	Indo – British Rain-fed Farming Project
LAMA	Legal Age of Majority Act
MCDWA	Ministry for Community Development and Women's Affairs
MCG	Mufiri Consolidated Gardens
MDC	Movement for Democratic Change
NGO	Non Governmental Organisation
NGWP	New Gato Wetland Project
PAF	Project Agro-Forestier
PRA	Participatory Rural Appraisals
RBZ	Reserve Bank of Zimbabwe
RDDC	Rural District Development Committee
SDARMP	Small Holder Dry Areas Resource Management Project
STERP	Short Term Emergency Recovery Programme

TTL	Tribal Trust Lands
UN	United Nation
USA	United States of America
UZ	University of Zimbabwe
VCT	Voluntary Counselling and Testing
VIDCO	Village Development Committee
WAD	Women and Development
WADCO	Ward Development Committee
WID	Women in Development
ZANU PF	Zimbabwe African National Union – Patriotic Front
ZISCO	Zimbabwe Iron and Steel Company

LEGAL INSTRUMENTS CITED

Colonial Water Act of 1927

Communal Land Act of 1982

Provincial Councils and Administration Act No. 12 (Revised edition of 1996)

Rural District Councils Act (Revised edition of 1996)

Traditional Leaders Act Chapter 29:17 of 1998

The Constitution of Zimbabwe

Land Apportionment Act of 1930,

Land Husbandry Act of 1951

Land Tenure Act of 1969

Legal Age of Majority Act of 1982

ABSTRACT

This study explores the effect on local livelihoods of the New Gato Wetland Development Project (NGWP) in a rural village in Zimbabwe, in light of a post development critique which has labelled most development as a failure. The study challenges this common thread in most post development literature by showing that certain benefits did accrue to local people even while the project itself collapsed institutionally.

Based on ethnographic fieldwork undertaken between March 2006 and September 2007 that generated qualitative data, the thesis explores how causes of development failure are not always external, as postulated by post development critics, and shows how the cause of failure of development projects such as the NGWP can be internal and mainly influenced by local level politics and conflict. The study offers a critique of the post development school of thought through the analysis of the positive spin offs from the NGWP that have trickled down to and benefited local people. Gender is a cross cutting issue and for that reason the study also explored gender relations in the NGWP in light of post development ideas.

The thesis illustrates how the implementation of the NGWP resulted in short term benefits of food security, improved productivity per acre, income generation and women's economic empowerment for some local people. It shows that the project did not, however, produce the intended long term benefits of improved livelihoods through food security and income generation from wetland harvests. It does that by demonstrating that that was because local level politics, erratic rainfall, early withdrawal of donor funding and support staff all negatively impacted on the project's medium to long term viability, resulting in it effectively collapsing. That said, however, the thesis also shows that village members of the project, and others who adopted the project's techniques and used them on an individual basis in informal wetlands and dry lands, were able to benefit from it in the medium (and possibly long) term. The results thus challenge various post development claims and ideas. The NGWP case study shows that development is not always a failure or illusion but that it can have positive spin offs that are beneficial to local communities.

PROLOGUE

The sun is blazing, and you can almost see mirages ahead because of the heat from the sun. I look up in this scorching heat and the sky is blue, just a few small clouds are hovering above. The grass is brown all around and everywhere I look it's a picture of dryness. I can see the wetland dam and it still holds a bit of water. A few birds can be seen drinking there. Nearby, the maize fields lie idle, only the remains of last season's maize stalks remain. I can smell dry soil and cattle dung. I have really become used to the smell. The trees have shed their leaves and at a distance in the fenced wetland project, fives cows can be seen grazing on one of the ridges. I wonder how, with the gate closed, the cows could have got in. I quickly remember the damaged fence on the other side of the project fence. From where I am I can see ridges and furrows alternating and long brown grass all over the wetland project. Nothing has been cultivated by the farmers. The big project field lies idle and lifeless except for the cattle. So many questions race through my mind as I wait for my turn at the village borehole pump to fetch our drinking water. From this borehole site you can see the whole wetland project which lies 200 metres ahead. My Research Assistant is also busy taking photos. At the borehole, school children come to drink water. These are grade 0 students mainly aged between 4 and 6 years. Some of them are barefoot; almost all except one in this particular group do not have the proper school uniform. Some of their clothes are torn. Some carry old plastic bags and I can see some boiled grain in there. They giggle and look at us as they drink water. The borehole is a busy place. Still deep in my thoughts I am greeted by two local ladies and one of them is a wetland project member. We chat about the heat and, as if she has read my mind, she begins to talk about the wetland project. She says she cannot believe the project is 'dying slowly'. I watch her as she looks at the wetland ahead of us and I can see mixed emotions flashing over her face. To me they represent happy emotions of the not so distant bumper harvests and sad emotions of the idle wetland project. She pulls a smile at me and says 'I hope that this project will rise up again'. As she finishes, Mr. Vafana, another wetland member passes through and greets us. He is a smart old man, wearing an old but clean and neatly ironed pair of trousers and a shirt. He is sweating because of the heat. He explains that he is on the way to a party [ZANU-PF] meeting at the shops. Mrs. Nokuda provokes him and says: 'our project?' Mr. Vafana looks at us and to my surprise he starts to shout loudly as he walks away 'you project people are the ones who killed a very good project'. He goes away and I can hear him

continuing to talk to himself. As he leaves, the women stare at him and one of the ladies mumbles under her breath what I assume are not very kind words. My turn comes to fill my 25 litre container. We laugh and joke with other ladies at how I cannot carry the container on my head. Some cattle come and drink the dripping water from the borehole pump. As the barefooted ladies wait for their turn to take water, they chase the cattle. I start walking slowly, struggling with my 25 litres of water and I stop briefly to rest, in my thoughts wondering what has really happened to the wetland project that's lying idle behind me. As I walk back to our house at one of the local schools I know the questions in my mind are issues I will explore in the months that lie ahead of me within this local rural village.

29 July 2006 (Taken from my field notes).

I: INTRODUCTION

> There are still large chapters of the story of development that need to be written…But these stories should be told, and heard, in concert with other stories – stories of what development meant for those whose visible and hidden lives it transformed (Crush 1995:22).

1. A look at post development

Over the past decades, development in Third World countries has been a topical issue. Various development policies and interventions have been put in place to address the lack of development or 'underdevelopment' in these countries. Western countries, various organisations and development practitioners are currently working towards alleviating poverty and improving livelihoods in developing countries (Crush 1995; Ferguson 1990; Grillo and Stirrat 1997). Development in the eyes of various policy makers and those working in the field of development has been a 'process of transition or transformation toward a modern, capitalist, industrial economy' (Ferguson 1990:15). It has also been understood as a discourse that has not been able to achieve its goal of economically developing the less developed countries and improving the livelihoods of people in these nations.

Before considering the idea of development as discourse, it is necessary to discuss the notion of livelihood as a concept, because it has generated debate in academic and development circles (Wallman 1984; Chambers & Conway 1992; Carney 1998 ; Ellis 2000). Despite the various definitions of livelihood that exist (Chambers & Conway 1992; Carney 1998; Ellis 2000; Francis 2000; and Radoki 2002), there is consensus that livelihood entails the ways and means by which people make a living and the relationships involved in their doing so. In my thesis, I use the term livelihood to refer to the relationship between the ways in which people make a living in order to meet their basic needs and the resources and assets, which include social relationships that they draw upon to do so.

Development discourse dates back to the 1940s and the 1950s when 'industrialisation and urbanisation were seen as the inevitable and necessary progressive routes to modernisation…and only through material advancement could social, cultural and political progress be achieved' (Escobar 1997:86; also see Sachs 1992; and Edelman

and Haugerud 2005). Some theorists place the birth of development ideas in the 'inaugural address' by Harry Truman as president of the United States on 20 January 1949. He said that 'what we envisage is a program of development based on the concepts of democratic fair dealing' (Truman [1949] 1964).[1] According to Escobar (1995:3) 'the Truman doctrine initiated a new era in the understanding and management of world affairs, particularly those concerning the less economically accomplished countries of the world'. However, some scholars view development as rooted in 19th Century 'Western capitalist hegemony' (Watts 1995:47; Cowen and Shenton 1995) and 'the globalisation of Western state institutions, disciplines, cultures, and mechanisms of exploitation' (Crush 1995:11). Since the 1940s, development of and in Third World countries has became a priority for both the developed and developing nations, despite debates surrounding the origins of development as both concept and policy (Chambers 1987; Kabeer 1994).

Various theories about development have evolved in response to this political prioritisation. They range from modernisation theories (Rostow 1960), to dependency theories (Frank 1969; Amin 1974) and feminist theories (Boserup 1970; Rathgeber 1989; Kabeer 1994; Scott 1995; Parpart 2000). Indeed, today, development remains a 'highly contentious concept'. As a result, scholars have summarised it as being a 'multi faceted, multi vocal process and a complex site of contestation' (Grillo et al 1997: vii).

Imperatives toward development have also ushered in a number of government and development agencies' policies, and they have in turn resulted in development projects and interventions being implemented in most Third World countries. One such project is Zimbabwe's *Ngwarati* Wetland Project in the Mufiri Ward of Zimbabwe's Shurugwi District which is the focus of my thesis.

Reports by various scholars indicate that most development projects in Third World countries have failed and have negatively impacted on local people's livelihoods. Those reported failures have given rise to a critique of development policies and practices, with various scholars highlighting the limitations of and the problems associated with development theory and practice (Esteva 1987; Ferguson 1990; Escobar 1995; Sachs 1992; Crush 1995; Illich 1997; Crewe 1997; Grillo and Stirrat

[1] Available at www.bartleby.com/124/ . Accessed 25 March 2008

1997; Shanin 1997; Rahnema and Bawtree 1997; Ziai 2004; Berg 2007; Bologna 2008). According to Simon (2006:11) 'exploration of different development discourses and narratives has flourished in the wake of the development impasse especially in the decade since the publications of Escobar and Crush'. The debates focusing on the problematic nature of the development process and its effect have come to be known as a post development critique.

As one traces post development thoughts and critiques of development, four books stand out. The first is the *Development Dictionary* contributed to by various authors, disillusioned with development, both as a theory and as practice. These authors believe that development has not achieved its goals but has become a 'misconceived enterprise' (Sachs 1992: 2-4). There is also Escobar's book entitled *Encountering Development,* which critiqued the development discourse as having 'created an extremely efficient apparatus for producing knowledge about and the exercise of power over the Third World' (Escobar 1995:215). Rahnema and Bawtree's (1997) book, *The Post–Development Reader,* critiques development as having been 'a threat to people's autonomy' (Rahnema and Bawtree 1997:9). And lastly, Edelman and Haugerud's (2005) *The Anthropology of Development and Globalization: From Classical Political Economy to Contemporary Neoliberalism,* analyses development and globalisation discourses. These books offer various perspectives of post development and point out how post development scholars view development as a 'destructive and self serving discourse propagated by bureaucrats and aid professionals that permanently entraps the poor in a vicious circle of passivity and misery' (Edelman and Haugerud (2005:2). Some authors view these four major works as having managed to clearly articulate the ideas and thoughts embodied in post development writings (Agostiono Ascione 2003; Ziai 2007: 4).

According to Rapley (2004: 352) post development is a school of thought that says 'the real goal of development is inevitably human control and domination, not human development'. Watts (1995: 45) has referred to the 'emergence of a coherent anti development discourse' that 'unequivocally rejects development as degenerate, ecologically maladaptive, an empty dream'.

Post development protagonists have argued that development policy and practice have repeatedly ignored people's autonomy and freedom and left the intended

beneficiaries worse off than they were before implementation (Ferguson 1990; Escobar 1995; Shore and Wright 1997). Some critics have argued that development projects have failed 'because they have not taken into account and sometimes have misunderstood the history, social and political realities of the Third World' (Long 2001:32-4; Ferguson 1990), which has led to 'failures and disappointments' of development policies and practices (Mosse: 2005:1).

This thesis considers the post development critique and questions the increasingly popular argument that development projects have resulted in mostly negative consequences as some projects have had some positive spin-offs, even when the project itself has collapsed. The *Ngwarati* project in Zimbabwe is a case in point where there has been a positive spin off. I thus use this project to question some of the views and assertions made by various post development theorists who have treated development as a 'failure' (Illich 1995), and as 'rarely seem[ing] to work' (Crush 1995:4), as a 'deceitful mirage', an 'illusion' (Rahnema & Bawtree 1997: x), and as an 'empty dream' (Watts 1995). My questioning of such post development assertions is in line with what was reported by Edelman and Haugerud (2005:53) who pointed out that, although most analysts agree about the failure of development, 'one reviewer suggests that tales of development failure may be over represented in scholarly literature, [and that] many development projects that are modest successes receive little publicity'.

While it is clear that development discourses and the practices following them have failed to totally transform the Third World, one needs to recognise that, in as much as there may have had negative impacts, there have also been benefits for people in the Third World (Mosse 2005). Although I generalise the post development argument, the thesis nevertheless shows that some post development theorists' concerns and views remain valid. The ensuing analysis of the collapse of the *Ngwarati* wetland project confirms some of the limitations and shortfalls of development as highlighted by post development theorists, and also reveals the positive outcomes of the project.

One result of various rural development initiatives implemented in Zimbabwe after independence was a series of *Ngwarati* wetland projects in eight villages in the country. They were the result of research carried out by the Department of Research and Specialist Services (DRSS) and Agricultural Research Council (ARC) in the

Ministry of Agriculture. This department made genuine progress in improving agriculture in Zimbabwe (Rukuni et al, 2006). DRSS's research has focused on various crops, hybrid seeds and the introduction of new agricultural technology, such as the *Ngwarati* wetland tillage system, all intended to boost productivity (Rukuni *et al* 2006).

Since the 1980s the Zimbabwean government, through the Ministry of Agriculture, NGOs and international organisations, has carried out numerous projects in the rural areas of the country. Projects have involved the introduction of new agricultural technology, inputs, irrigation, infrastructural development, farmer training, credit and market facilities and rural electrification. Rukuni *et al* (2006:674) state that 'the government of Zimbabwe in the post independence era invested in support of small holder agriculture' – as distinct from the pre-independence period when most such research and support went to large-scale commercial farmers.

Despite major investment in rural development projects, many projects have, however, failed to improve rural livelihoods in the long term. Some projects, especially those which have not taken into account local needs and priorities, have failed to make any meaningful contribution to the livelihoods of local people. To illustrate, I briefly look at some of the projects in Zimbabwe that have reportedly failed to bring about the 'benefits' that were meant to accrue to local communities.

Sibanda (1986) gives examples of failed development projects in Zimbabwe. He focused on lessons that were learnt from two projects implemented in the Zambezi valley. He (1986:311) argued that, because 'agricultural policies and rural development strategies in most developing countries heavily rely on Western concepts and principles', this commonly affects their success as development projects. Sibanda used the example of two development projects, namely the Mzarabani Goat Project and the Ten Tractor Cooperatives project, to show how some projects were inappropriate for local farmers thereby resulting in a failure to produce their intended benefits. Sibanda pointed out that the Goat Project was negatively affected by the absence of community participation during its decision making and planning stages. As a result, the project failed to achieve its goals as the women members failed to meet the projects' labour needs and other predetermined goals. Projects such as these are used by post development critics as examples to support

their argument that development has failed to improve the lives of Third World people.

Another example is one recorded by Akwabi–Ameyaw (1997) who described the failure of so-called Model B producer cooperative resettlement projects that were introduced in Zimbabwe after independence. The Model B projects were meant to 'extend and improve the base for productive agriculture in the peasant sector through cooperatives' (Akwabi–Ameyaw 1997: 438). Most of these Model B projects failed to meet their intended goals because of human organisational problems with cooperatives, labour shortages, and misuse of funds, management problems and conflict. Akwabi–Ameyaw (1997:439) avers that 'since their inception, these cooperatives [found] throughout the country have underperformed individually and collectively. All of them are gradually falling apart'.

The underperformance of development projects in Zimbabwe was also highlighted in a paper presented by the then Zimbabwe Minister of Agriculture on 'Financing Smallholder Farmers'.[2] He highlighted how some of Zimbabwe's agricultural projects had collapsed after their donors had pulled out and how farmers had failed to 'to sustain the operations'. As a result, good projects ended up being abandoned because the farmers lacked management skills. He pointed out that most farmers in areas where development projects had been introduced had failed to realize the intended benefits of those various rural development programmes. Indeed, the failure of projects like those described above has provided much grist to the post development mill.

For most scholars, especially anthropologists of development who take a post-development perspective, development has failed to deliver on its promises and goals, not only in Zimbabwe but in most developing countries. This position was summarized by Sachs (1992:1) who argued that 'the idea of development stands like a ruin in the intellectual landscape. Delusion and disappointments, failures and crime have been the steady companions of development and they tell a common story, it did not work'. Post development theorists have thus argued and advocated for alternative strategies to alleviate poverty and for dealing with problems affecting Third World countries (Escobar 1995; Illich 1997). Simon (2006: 12) argues that the 'whole thrust

[2] Available at http://www.agritrade.org/Publications/DW%20Book/PDFs/made.pdf (accessed on 12 March 2008).

of anti and post development is precisely the rejection of the existing institutions and procedures…and that mainstream multilateral poverty eradication strategies have become diluted and ineffective'. Development has thus come to be viewed by many post development theorists as problematic and something to be abandoned because of its Western influence (Crush 1995). For Escobar (1991:44) 'development was and continues to be for the most part a top down, ethnocentric, and technocratic approach, which treated peoples and cultures as abstract concepts , statistical figures to be moved up and down in the charts of progress'

My ensuing analysis of the *Ngwarati* wetland project as introduced in Mufiri Ward will confirm some of the problems and shortfalls of development as expounded by post development critics. These are issues that focus on power and dominance (Escobar 1995), loss of autonomy by 'local people' in Third World countries (Shanin 1997), the failure of development projects to improve livelihoods (Ferguson 1990; Illich 1997), exclusion of indigenous knowledge in the development process (Crewe 1997) and the 'top down approach' in the implementation of interventions (Chambers 1987; 1994; Long 2001). For most post development critics, the whole development process was and still is laden with unequal power relations in favour of the developed world in ways that have led to the field of development being seen as a 'cartography of power and knowledge' (Crush 1995:57). As Mosse (2005:2) put it, the critical view within post development thinking has seen policy 'as a rationalising technical discourse concealing hidden purposes of bureaucratic power or dominance, which are the true political intent of development'. Development has thus come to be seen as a political process in which development that has emanated from the West, has been targeted at less developed countries for purposes of domination by Western people and their institutions.

Escobar (1995; 1997) clearly showed how the whole development process presented a 'system of relations' that 'establishes a discursive practice that sets the rule of the game: who can speak and from what point of view'. From that perspective, those in the West had the power to prescribe the policies and technical solutions for the Third World, the countries and people of which were supposed to accept the knowledge, advice and technical solutions and policies emanating from the West. In other words, Third World citizens have had to accept the 'development prescription' and take it just as the patient obediently takes medication prescribed by a doctor. According to

Escobar (1995: 9) ‘the development discourse...has created an extremely efficient apparatus for producing knowledge about and the exercise of power over the Third World…in sum it has successfully deployed a regime of government over [developing countries], a space for ‘subject people’ that ensures control over it’.

The theme of the ‘power of development’ has also been discussed in detail by Crush (1995: xiii) who saw the development process to be ‘power laden’. Crush traced this power as being rooted in the ‘language of development’ in which the ‘primary purpose of the development text is to convince, to persuade, that this (and not that) is the way the world actually is and ought to be amended’ (1995:5). Moreover, he wrote of a ‘development industry’ that is characterized by ‘networks of power and domination’ (Crush 1995:5).

From such a perspective, development is viewed not as a neutral process but as one laden with power in which the West extends its authority and dominance across the globe, all in the name of development. The failure of development initiatives in the Third World is then attributed to the ‘vast hierarchical apparatus of knowledge production and consumption’ in the so called ‘development industry’ (Crush 1995:5) or ‘development machine’ (Ferguson1990). Development, according to Crush (1995:6), is about ‘power and the control and management of people’ in the so called developing countries, while for Escobar (1995:214) ‘Third World countries thus became the target of new mechanisms of power embodied in endless programmes and strategies’.

As I hope will become clear below, I have found the post development critique that considers issues of power and domination to be helpful for my analysis of the *Ngwarati* project. Other issues highlighted by post development critics that have proven helpful in my analysis of the *Ngwarati* wetland project are those relating to how development discourses overlook the history and traditions of local people and view their socio-cultural and political institutions as impediments or obstacles to development, and how those discourses and indeed development agents appear freely to prescribe ‘technical solutions’ for the Third World (Ferguson 1990; Crush 1995). As a consequence, as Rew (1997:91) points out in commenting about the way development agencies have understood development, ‘cultural and social

considerations are generally viewed as 'outside' the agency and about 'the customs of the locals' rather than an essential aspect of technical assistance work and design'.

Not only have most development policies and interventions tended to overlook indigenous knowledge, they have also denigrated local knowledge as useless and tended to prescribe exogenous development and technical solutions to the problems they see as needing to be addressed. For post development critics, this has resulted in a development approach which is 'eurocentric' (Crush 1995:19). As Crush (1995:9) phrased it, 'not only are the objects of development stripped of their history, but they are then reinserted into implicit (and explicit) typologies which define a priori what they are, where they have been and where with development they can go…'. The consequence is what Long (2001) refers to as 'top down' development interventions that in the end have failed to meet their objectives and to include local people in the development process. Such disregard for local people, their needs and culture has led to some scholars saying that 'you must be either be very dumb or very rich if you fail to notice…development stinks' (Esteva 1987:135).

Other useful concerns highlighted by post development critics centre on an argument that, despite the goals of most development projects, they in fact do not benefit local Third World people (Mosse 2005:4). Development, for most post development critics, has been seen as not addressing local needs and priorities. Sometimes development is planned externally by so called experts without a full understanding of the actual situation on the ground and this has also proved to be problematic as shown by Ferguson (1990) in his *Anti-Politics Machine.* Ferguson (1990) outlined the failure of a series of related agriculturally and economically focused development projects in one Lesotho district. He showed how the projects, in particular a livestock project, failed because 'the picture of Lesotho constructed by the [World] Bank and other 'development agencies' bears so little resemblance to reality; it is hardly surprising that most 'development' projects have 'failed' even in their own terms' (1990: 228).

Illich (1995:91) also questioned the role and impact of development interventions in Third World countries, especially in the areas of health, education, nutrition and transport. Arguing that such interventions do not address local needs and priorities, Illich (1995:100), argued that it is because the people that are involved in

development planning define and set development goals 'in ways with which they are familiar, which they are accustomed to use in order to satisfy their own needs and which permit them to work through the institutions over which they have power or control … this formula has failed and must fail'.

The concerns of post development critics outlined above have provided me with critical ways of looking at development practice as it was implemented through the *Ngwarati* wetland project. During fieldwork and writing my thesis I have often been confronted with questions such as: what is development, then, if local needs and priorities are not addressed? Was the project appropriate for the local people? Did it benefit them? Did it meet their needs? Was it sustainable? Does the story of the *Ngwarati* wetland project confirm or challenge any or all of the post development critiques of development? These are all questions that my thesis tackles through my analysis of the *Ngwarati* wetland project that was implemented in the Mufiri Ward of Zimbabwe's Shurugwi District from 1998 onwards.

For most post development critics, the unintended side effects of most development projects have tended to be negative and not in line with those development projects' initially proposed outcomes. Mosse (2005:19) challenges this assertion by showing that 'projects may have positive effects while being declared or declaring themselves, as failures'. Mosse (2005) explored a British funded project in India and examined the ten year experience of the Indo-British Rainfed Farming Project (IBRFP). He shows that despite the policy and technical problems with the project it did 'have significant positive effect on the lives of many thousand adivasis in the villages of Western India region, albeit often in unscripted and unintended ways' (Mosse 2005: 227).He reports how the IBRFP helped to increase food security for the farmers through better crop yields, improved livestock and home grown vegetable and new fodder sources.

Building on Mosse's argument through this thesis I challenge aspects of the post development position by showing that at least some of these so called unintended side effects or outcomes can be positive and beneficial to local people in terms of improving their lives. Such, sometimes small, but always useful unintended side effects need to be surfaced rather than hidden under post development critique labels of project 'failure' and 'disaster'. Indeed, I would argue, highlighting them might

provide opportunities for their use for the betterment of local populations and for the improvement of development intervention strategies.

What I am suggesting then is that, with Mosse (2005), one has to say more than just that a development project has failed. One needs to go beyond that point and build on the project's processes and their outcomes, be they positive or negative. How this can be done is illustrated by Emma Crewe's work on 'The silent traditions of developing cooks' (Crewe 1997:60). Crewe described how a development organisation introduced wood stoves to rural people in Kenya, Sri Lanka and elsewhere, in a bid to deal with the problem of deforestation which, it was assumed, was occurring because of a need for fuel wood. She also showed how the project failed precisely because the stoves were rejected by residents in the areas where they were introduced. She explained that the primary reasons for the failure were the 'marginalisation of indigenous knowledge' and because the introduction of the stoves was 'founded on misplaced assumptions because advisers did not listen to cooks and energy users, not even national energy analysts and researchers' (Crewe 1997:63). She further said that it was only after the project's failure that the donors realised that deforestation was 'ultimately a land and not a fuel issue' and that attempting to address it with cooking technologies would not deal with the underlying socio-economic and political problem of land availability.

However, Crewe also showed that, despite the stove projects' widespread failure, in some areas the extensive trials on suitable designs for stoves exposed them to many people; and that some women adopted them precisely because they had been shown to use less fuel and therefore to save women time and to reduce the drudgery of fuel collection (Crewe 1997:65). What this shows is that, despite the shortfalls and limitations of many development interventions, there can be useful pieces that can be picked up from development initiatives, and positive project 'residues'.

As this thesis will show, using the *Ngwarati* project in Mufiri as an example, despite the collapse or failure of many development projects, some unintended positive benefits can result. Such benefits might be sustainable and indeed sustaining of local livelihood options, long after the project itself has collapsed.

The study which forms the basis for my thesis focused on the effect of introduction of an *Ngwarati* wetland project in Mufiri on local livelihoods and gender relations. I show how the implementation of the project contributed to short term benefits such as increased food supplies, access to productive and fertile wetlands, income generation and slight shifts in gender relations for local people who became project members. Despite the initial benefits of the project, however, it did not, in the long term, deliver the expected benefits to its members. I show how conflict and other reasons led to the disintegration and collapse of the project. I also show how the collapse of the project ushered in some unintended effects as informal wetland and dry land farmers adopted some of the techniques from the project thus showing that the *Ngwarati* technology was proving to be producing medium to long term benefits for those farmers that had adopted the technology.

2. The *Ngwarati* Wetland-Tillage System

The *Ngwarati* system is a novel agricultural technology that was introduced in Zimbabwe between 1997 and 2000 by the Department of Research and Specialist Services (DRSS), Agricultural Research and Extension Services (AREX) and the Chiredzi Research Centre in conjunction with the Small Holder Dry Areas Resources Management Project (SDARMP). The project received funding from the International Fund for Agricultural Development (IFAD) and the Australian Agency for International Development (AuSAID). The financial input for the project was part of a five year government agricultural loan from IFAD and AuSAID. The SDARMP project, which included the New Gato Wetland Project, received a total of US$13.9 million[3] and AuSAID was U$ 9.6 million.[4] The *Ngwarati* technology was developed by Mharapara (1995) and 'was conceived and tested initially at the Makoholi Experiment Station (Masvingo) and subsequently Horticultural Research Station (Marondera)'.[5] After the initial trials the technology was introduced to various rural areas as part of the SDARMP project.

[3] Government of Zimbabwe – Support to NEPAD – CAADP Implementation (NEPAD Ref 04/02E), available at ftp:ftp.fao.org/docrep/fao/007/ae569ea569e00.pdf (accessed on 13 May 2010)
[4] http://www.environment.gov.au/land/publications/actions/overseas2.html (accessed on 13 May 2010)
[5] Available at http://www.sadc.int/fanr/agricresearch/mapp/reports/Zimbabwe%20-%20National%20situation%20analysis%20report.pdf (accessed on 21 September 2010).

The SDARMP programme was 'aimed at providing support to farmers living in Zimbabwe's drier and drought prone areas of the Midlands and Matebeleland South Provinces, to ensure food security and incomes, based on sustainable tolerant resource management by and for the community' (SDARMP Report 2002:3). This was in line with IFAD's goal of 'empowering poor rural women and men in developing countries to achieve higher incomes and improved security'[6] and AusAID's aim of assisting 'developing countries reduce poverty and achieve sustainable development'.[7]

Ngwarati is a technology used on natural wetlands which are locally known as *vleis* (Afrikaans) or *dambo* (Chichewa). The term *dambo* is a *Chichewa* word that is used to describe grasslands in Zambia and Malawi (Thomas & Goudie 1985). According to Matiza (1992:91) a wetland area is referred to [as] *matoro* or *bani* in Zimbabwe, *vlei* (Afrikaans) in South Africa'. The DRSS was tasked with the implementation of the project in selected sites throughout Zimbabwe. From 1997/8 to date, the technology has been implemented as pilot projects in eight areas throughout Zimbabwe, those sites being in Zvishavane, Seke, Gutu and Shurugwi districts. The focus of my work for this thesis has been one of these pilot projects, introduced in a wetland in the Mufiri Ward of Shurugwi District in Zimbabwe's Midlands Province. The project there is known as New Gato Wetland Development Project (NGWP).[8]

The *Ngwarati* system, a broad ridge and broad furrow tillage system, is a technology used in *vlei* areas in Zimbabwe in order to improve their productivity without environmentally degrading them (Mharapara 1998). The technology is said to be based on how Zimbabwean farmers from the pre colonial through to the post colonial era have utilized *vleis*. A report entitled '*Situation Analysis of Agricultural Technology Generation , Dissemination and Adoption in Zimbabwe'* [9] explains that 'the system borrows from the traditional cultivation practice of ridges and furrows but reoriented at zero gradient and broadened to allow for the interception and retention of water and silt within the cultivated areas'. Owen (1994:105) documents how small ridges and furrows have been observed in wetlands in present day settlements in

[6] IFAD website available at http://www.ifad.org/governance/index.html (accessed on 24 March 2009).
[7] AusAID website available at http:www.ausaid.gov.au/makediff/default.cfm (accessed on 24 March 2009).
[8] Throughout the thesis I will make reference to the New Gato Wetland Project as NGWP.
[9] Available at http://www.sadc.int/fanr/agricresearch/mapp/reports/Zimbabwe%20-%20National%20situation%20analysis%20report.pdf (accessed on 21 September 2010).

various districts of Zimbabwe like Marondera, Nyanga and Rusape. According to Matiza (1992:99), 'pre-colonial cultivation was based on shifting cultivation with intercropping of crops on raised ridges and basins'. It is this 'traditional' concept of ridges and furrows that is said to have been used in the development of the *Ngwarati* system.

The *Ngwarati* technology is designed in such a way that furrows and ridges are developed along the contours in an alternating sequence, starting from the highest point of a *vlei*. The furrows are constructed in such a way that they will hold water to a depth of approximately 30 centimetres before it flows into the next furrow below. The furrows measure about 3 metres wide and are separated by the ridges that are also about 3 metres wide. The *Ngwarati* technology allows for some of the water flowing through the furrows to collect in a small constructed catchment pit that acts as a water reservoir in the wetland (Mharapara 1998). The *Ngwarati* system allows cultivation in fragile wetland ecosystems, and is said to be a technology that greatly reduces erosion and simultaneously increases water holding in furrows (DRSS project documents 1999). Under the *Ngwarati* wetland tillage system, maize is grown on the ridges while rice is grown in the furrows which are waterlogged for part of the year. Wheat is also cultivated on the ridges, during the dry season. Other crops such as cassava, sweet potatoes and vegetables can also be grown. See pictures 1 and 2 from the NGWP and 3, 4 and 5 from the *Zungwi* wetland scheme showing the *Ngwarati* technology.

Pictures 1 & 2: Ngwarati tillage system showing the broad ridges and furrows

Picture 3: Broad ridges and furrows of the Ngwarati technology. Maize is grown in the ridges and rice in the furrows at Zungwi wetland scheme (Courtesy of ULKRS)

Picture 4: Rice growing in the flooded furrows of the Ngwarati technology at Zungwi wetland scheme. (Courtesy of ULKRS)

Picture 5: Aerial photographs showing the alternating ridges and furrows of the Ngwarati technology at Zungwi wetland scheme. (Courtesy of ULKRS)

According to Khombe et al (2006) *Ngwarati* is a Shona word derived from the word for eland which has a striped pattern on its neck. The ridges and furrows in the *Ngwarati* system are constructed so that they attain such a striped pattern when viewed from a distance. *Vleis* are found mostly in the central parts of Zimbabwe (Mazvimavi 1994). According to Matiza & Crafter (1994:7), 'considering the internationally accepted definitions and classifications [of wetlands], Zimbabwe is well endowed with wetlands representing riverine [rivers, streams and associated wetlands], lacustrine [lakes and associated wetlands] and palustrine [marshes, swamps and bogs]'. The *vlei* which I looked at for this study is a palustrine wetland of a kind that is widely distributed throughout central Zimbabwe. Such wetlands are estimated to cover about 1.28 million hectares in Zimbabwe and they constitute 4.6 percent of the national land surface (Whitlow 1984; 1985).

Although various definitions of *vleis* (or *dambo)* are used in Zimbabwe (Matiza 1994), for my present work I have found the most useful to be Chabwela's (1991) definition of a *vlei* as a 'shallow, seasonally or permanently waterlogged depression at or near the head of a drainage network, or [as] may occur independently of a drainage system' (Matiza & Crafter 1994:92). This is because most of the wetlands found in Mufiri Area matched Chabwela's description.

Introduction of the *Ngwarati* system was enabled by post-independence legislative changes in Zimbabwe. Legislation governing the use of *vleis* for agricultural purposes dates back to 1927 when the colonial Water Act prohibited cultivation of *vleis* (Whitlow 1983; 1990). The Water Act was put in place after the colonial government realized that intensive agriculture was being carried out on *vleis* by both commercial white farmers and black subsistence farmers, and because there was concern that such practices were environmentally degrading (Matiza 1992). Various pieces of legislation were introduced to foster control of wetlands use and to conserve them in terms of a principle of natural resource conservation for its own sake. It was only after Zimbabwe gained its full independence that these policies began to be reversed. A 1998 amendment to the Water Act finally made it possible legally to till certain *vlei* areas (Mutambikwa et al 2000). This resulted in the birth of ideas that led to the *Ngwarati* system as developed by DRSS in Zimbabwe (Mharapara 1998).

The DRSS's hypothesis was that introduction and implementation of the *Ngwarati* system would increase the productive capacity of land and, as a result, improve people's livelihood options (Mharapara 1998). Yet there has been little or no detailed anthropological or sociological understanding thus far of the extent to which the system actually does make a difference to people's livelihoods at household level, nor of how introducing the system and using this particular technology to change productivity levels might affect gender and other social relations that have a bearing on local production activities. This thesis provides a first attempt to do that.

3. Research Questions

Post development scholars have criticized development policies and practices as having failed to meet their proposed goals. In this thesis I challenge this common thread that runs through most of the post development literature by exploring the New Gato Wetland Project (NGWP) in order assess the validity of some of the claims and ideas from this school of thought. I chose the NGWP because it is a good example of development interventions that have been implemented in Zimbabwe and also because limited work has been carried out in Zimbabwe on the socio-economic and gender effects associated with the implementation of the *Ngwarati* technology.

To date, very little sociological and anthropological research has been done on Zimbabwean wetlands. According to Mharapara (2000:1), research 'on wetlands has been minimal and the need for gathering information on the management of these ecosystems is long overdue'. The research that has previously been carried out on wetlands mainly 'focuses on wetland characterization and soil analysis' (Ibid: 2). In my consideration of the post development 'school of thought' I have focused on the New Gato Wetland Project in order:

1. To explore the ideas postulated by post development critics in relation to the success and failures of the NGWP *(Chapters III, IV & V)*;
2. To identify and give evidence of positive spin offs from the NGWP in order to support my critique of some of the post development arguments *(Chapters VI and VI)*; and
3. To explore gender relations in the NGWP in light also of post development ideas *(Chapter VIII)*.

4. Locating Mufiri Ward: Contextual issues

During the time of my fieldwork and indeed still as I write this thesis, Zimbabwe as a country is in a critical political-economic condition, the effects of which have been felt in Mufiri Ward as much as elsewhere in the country. For that reason, it is necessary to offer a brief summary of various facets of contemporary Zimbabwe, that way to give an understanding of the background and context of my study. Understanding these broader economic, social and political processes helps shed light on the various issues I explored in Mufiri Ward and how people were making and shaping their livelihoods, given such a context. I look at the economic, political, social and natural attributes of Zimbabwe.

Zimbabwe is a land locked country. In 2002 it had a population of 11 634 663 (CSO 2002). The country is divided into five broad natural regions in which the dominant factor conditioning agricultural production is climate. Mufiri Ward, where the study was undertaken, falls into Natural Region IV which is characterized by low rainfall and periodic and severe dry spells (Rukuni et al 2006). Rainfall per annum in the region ranges from 450 to 650mm and the region is characterised by relatively high temperatures (Vincent & Thomas 1961; Muir Leresche 2006).

In Zimbabwe, rainfall is the single most important climatic factor affecting crop production, 'yet it is also the greatest source of risk and uncertainty' (Makhadho et al 2006: 257). This uncertainty has resulted in some farmers in communal areas making use of wetlands in their area. Success stories have been reported by various researchers of small holder farmers who have successfully grown crops like wheat, beans, rice and vegetables in wetlands within the dry areas found in Natural Regions IV and V (Khombe et al 2006). Given their importance to rural livelihoods, wetlands have attracted the attention of many institutions concerned about their management and control. Their importance to livelihoods has also generated conflict between various users and indeed other stakeholders too (Makhadho 2006).

The livelihoods of most farmers, including those in Mufiri, have also been affected by the current socio-economic situation in Zimbabwe which appears to be a result of various factors. They include, among others, failed state policies, a controversial national land reform programme leading to international isolation and sanctions,

withdrawal of World Bank and International Monetary Fund support, bad governance and shortage of foreign currency. All this has left Zimbabwe's economy in an extended period of crisis characterised by hyper inflation, lack of foreign currency and food shortages, lack of basic commodities, unemployment, decline in key economic prime movers and poverty (Zimbabwe Poverty Assessment Study Survey Report: 2003; Rukuni et al 2006;Bank Survey 2007, Zimbabwe's Monetary Policy Statements 2004 -2008).

From 2004 to 2008, the Zimbabwean government attempted to address these economic problems through the Governor of the Reserve Bank of Zimbabwe (RBZ)'s quarterly Monetary Policy Statements (RBZ website).[10] Through these monetary policy statements, the government sought to resuscitate the economy, supposedly through cleaning up the financial sector, supporting agricultural recovery and instituting an anti corruption blitz (Zimbabwe Monetary Policy Statement 2005). In its initial phases, this monetary policy intervention showed some signs of success in bringing about economic recovery: inflation decreased from a high of 622 percent in November 2003 to 326 percent by August 2004. However from 2005, inflation began to increase again and especially in the years 2006, 2007 and 2008, it was best characterized as hyperinflation. By the end of 2008 some economists reported that Zimbabwe's real inflation rate had 'exploded beyond calculation'[11] while others calculated it to be at 89.7 sextrillion percent in November 2008 (Hanke 2008).[12]

In 2009, after protracted negotiations had seen the introduction of a unity government, it seemed that the situation might have begun improving. Although no official statistics on Zimbabwe's inflation rate were released by the Central Statistics Office (CSO) in the first quarter of 2009, in March 2009 some websites reported that Zimbabwe 'recorded a monthly inflation rate of -3.1 percent in February 2009 and -2.3 percent in January 2009 after the government revalued its currency and allowed the use of foreign currencies' (CSO 2004). The new unity government also introduced a Short Term Emergency Recovery Programme (STERP) in a bid to resuscitate the economy. Local farmers in Mufiri have not been spared the effects of this economic situation, and many who had previously been dependent on remittances

[10] Available at http://www.rbz.co.zw (accessed on 18 November 2008).
[11] Available at http://www.independant.co.uk/news/world/africa/zimbabwe-inflation-rockets-off-the-scale-1418016.html (accessed on 24 March 2009).
[12] Available at http://www.cato.org/zimbabwe (accessed on 24 March 2009).

from absent wage earners have been left without adequate support and insufficient resources to ensure their livelihoods.

Politically, Zimbabwe has been isolated by most developed countries like Britain, the United States of America (USA) and some European countries through targeted sanctions which were put in place after the country's controversial land reform programme which sparked international, regional and national attention and debate when it introduced its so-called 'fast track programme' that saw many white commercial farmers losing their land and some black people being given that land (Moyo 1995). The political environment has been characterized by lack of freedom of expression, unfair elections, banning of political gatherings and attacks on and victimisation of opposition party leaders – something that has continued even after the unity government was established.[13]

Meanwhile, various bills and other legal instruments have been reported to have been put in place in order to protect the interests of those in power (New Zimbabwe website 2008).[14] The March 2008 elections and June 2008 runoff elections were reported to have resulted in widespread violence and intimidation that resulted in some African countries supporting a declaration by various Western countries that there is a 'crisis' in Zimbabwe.[15] The political environment further contributed to the country's economic meltdown as it has been isolated by donors, the International Monetary Fund (IMF) and World Bank and by various European governments. The political crisis eventually led to protracted power sharing talks which finally resulted in the formation of the Government of National Unity (GNU) (in March 2009). One Zimbabwean scholar commented that 'the power-sharing government in Zimbabwe will be a difficult balancing act.[16] Competition between the Movement for Democratic Change (MDC) and Zimbabwe African National Union – Patriotic Front (ZANU-PF) as well as intra-party struggles could lead to instability or to dangerous compromises, but for the moment the GNU is Zimbabwe's one sign of hope'[17].Despite the hope brought about by the government of national unity, as I write, there are still disputes. After a visit to Zimbabwe in March 2010, a British

[13] Available at http://www.newszimbabwe.com (accessed on 30 March 2009).
[14] Various news articles have been published on this website by academics and politicians on the political and economic crisis in Zimbabwe.
[15] Available at http://www.crisisgroup.org//home/index.cfm?id=1233 (accessed on 30 March 2009).
[16] Available at http://www.newzimbabwe.com/zimpolitics/zm78 (accessed 6 April 2010)
[17] Available at http://www.rusi.org/analysis/commentary/ref:C49A7C35DD8E9A/ (accessed on 6 April 2010).

parliamentary delegation reported that Zimbabwe's political transition remained fragile and the country could slide back into crisis.[18]

The prevailing political environment has had a significant bearing on local people in Mufiri who have ended up in various patronage links which are politically based in order to ensure that they are not left out of development projects or marginalised from access to any benefits that might trickle to their ward, be it food aid or farming inputs like seed and fertilizer. Development in Mufiri is thus intensely and intricately interwoven with local party politics, something that was reflected in the way the *Ngwarati* wetland project was embedded in local level village politics. As I show below, local level politics, which in part reflected national party politics and party patronage networks, constituted a major factor negatively impacting on Mufiri's wetland project and ultimately resulting in its collapse.

5. Thesis Outline

As should now be clear, this first chapter outlines my main argument and draws on literature on the anthropology of development to show that development is a political process and that this can, in turn, have a bearing on the outcome of development projects. I have considered the post development critique as a hinge around which to present my main argument which is that development does not always result in wholly 'failed projects' precisely because there are often some positive spin offs or residues realised, even when a project has failed. This introductory chapter also provides details of the contextual background of the socio-economic and political situation of Zimbabwe during the period of my research. Background information on the *Ngwarati* system is also provided here.

Chapter II outlines the study area and details the methods I used to select a sample and to collect data as well to analyse those data. It also addresses some of ethical issues that have arisen in undertaking the work for this thesis. I thus discuss my experiences of using anthropological methods and staying in the village for 16 months. I comment on the strengths and weakness of the different methods I used, and identifying the major lessons I learned from using an ethnographic approach for data collection. I show how through triangulation I was able to work around some of

[18] Available at http://www.zimonline.co.za/Article.aspx?ArticleId=5874 (accessed on 6 April 2010).

the weaknesses of some research methods such as questionnaires. Furthermore, I discuss some of the ethical challenges I faced and how I handled them. I also show how having adopted an analytical framework that is based on post development critiques has guided me in my writing up the thesis.

Chapter III describes the implementation of the *Ngwarati* Wetland Project in Mufiri (the New Gato Wetland Project – NGWP) and shows how although the project embraced notions of community participation, local members were not involved in the planning of the project. Having briefly summarised the stated intentions of the project as expressed in its planning documents, I describe in detail the implementation of the *Ngwarati* wetland project, its membership and its management. I discuss in detail the authority structures that existed in the NGWP and show the different power levels that were operational in the project.

Chapter IV describes and analyses the apparent success and decline of the NGWP and shows how the project managed to achieve only short term benefits for its members and not the long term benefits originally intended. I focus in particular on the various benefits that members accrued from the project by drawing on data both from project records and from project members themselves. I also show how the project collapsed and describe in detail the indicators for the decline of the NGWP.

Chapter V shows how the *Ngwarati* wetland project became embroiled in local level politics and how that in turn minimized its ability to achieve its intended long term goals of positively impacting on local livelihoods. I show how village politics, as well as other factors, such as the early withdrawal of SDARMP, erratic rainfall and lack of extension advice and support, all resulted in the collapse and eventually the disintegration of the project. Focusing in particular on the causes and effects of local level politics and conflict on the New Gato project, I show how political processes and events within the project led to its collapse. My analysis in this chapter demonstrates one of the points raised by post development critics: that failure to understand the local socio-political contexts within which development projects are implemented commonly results in the collapse of a project with potential to improve local people's livelihoods in the long term.

In Chapter VI I show how the *Ngwarati* technology was transferred from the project to local informal wetlands, I draw on cases of wetland project members and others where the people concerned have adopted the technology and successfully implemented it within their own respective households' wetland gardens and fields. I show further how adopting the *Ngwarati* technology led to those households having to make use of their children's labour, with consequences for those children's schooling – an outcome that, while positive on one hand, might be seen by some as negative on another.

Chapter VI's overall aim is to show that, despite the challenges faced by informal wetland farmers, their adoption of *Ngwarati* technology resulted in medium and possible long term benefits of a kind that proved to be only short-term benefits in the New Gato project itself. The evidence offered in this chapter and in Chapter VII shows how the apparently total pessimism of post development ideas might be questioned, precisely because of evidence that development projects, even when they appear to fail, can leave useful residues that are able to increase local people's livelihood options and enhance their livelihoods.

Having shown in Chapter VI how informal wetland farmers who adopted some of the *Ngwarati* technology were able to benefit from doing so, in Chapter VII I show how some dry land or rain fed[19] farmers have also adopted some technologies and farming skills that were introduced by the *Ngwarati*-based New Gato project. In order to do this I describe how some dry land farmers have introduced contour ridges and developed water reservoirs in their fields and gardens, as well as introduced water conservation techniques in order to boost their land's productivity. These innovative technologies, learnt from the *Ngwarati* project, have been adopted by both wetland project members on their dry lands and also by others who were not project members but had, by virtue of being resident in Mufiri Ward, seen the project in action and also seen the innovations introduced by their dry land neighbours who had been members. I identify the challenges that dry land farmers faced that resulted in some of them adopting the *Ngwarati* technology.

[19] Throughout the thesis I will make use ofthe terms 'dry land' or 'rain fed' interchangeably to refer to dry land or rain fed farming in Mufiri. Dry land farmers relied on the rain due to lack of irrigation water supplies for dry land farms in Mufiri.

Having shown in Chapters VI and VII some of the positive spin offs of the project on local livelihoods I use Chapter VIII to consider the gender relations effects of the project in the ward. One of the socio-political changes introduced by the New Gato project was that local Mufiri women were able, for the first time in such a development project in the ward, to participate as full members, as adult villagers in their own right. I show how the project temporarily empowered women by providing them with a certain degree of autonomy, decision-making power and financial independence that they had not had before becoming involved in the project. I also show how, for some women, the project's collapse meant an erosion of those acquired benefits while others managed to hold on to their newfound autonomy. I draw on the experiences of women who adopted the *Ngwarati* technology and its associated farming skills in informal wetlands and dry lands, to illustrate the technology's residual impact on gender relations

Chapter IX constitutes a conclusion in which I once again locate my argument within the critical development literature and use its findings to critique post development approaches. I show that, although some of my data confirm aspects of post development scholars' critiques, other such data demonstrate that the critique is often too blunt in that it fails to recognise that development projects such as the New Gato Wetland project, based as it was on *Ngwarati* technologies, leave positive residues in the form of skills and understanding about technology. Such can provide medium to possible long term benefits for local people in their efforts to broaden their livelihood options and thereby to help towards ensuring their livelihoods.

II: FIELDWORK SITE BACKGROUND AND METHODOLOGY

> In ethnography methodology the pivotal cognitive mode is 'observation'…...it is also essential to listen to the conversations of the actors 'on stage', read documents…..ask people questions. (Gobo 2008:5)
>
> Qualitative research is not for the faint-hearted, but it can be exhilarating and can provide unique and valuable insights. (Barbour 2008:9)

1. Introduction: Entering the scene

A few kilometres before reaching Mufiri ward, I could already see the cattle grazing. There were some women carrying water containers on their heads and children playing around the scattered homesteads. The scene had changed drastically from what I had observed in the urban area where I was coming from. Some houses were neatly thatched; some had asbestos roofing. I noticed wells and boreholes and finally I saw the junction from the heavily pot-holed, but nonetheless tarred highway to Masvingo onto the gravel road which led to Gato Secondary School in Mufiri. I saw the old sign: 'Gato Secondary School' and took the left turn and drove towards what would be my assistant's and my new home for the next 16 months of fieldwork. Upon our arrival we were greeted by the headmaster and some teachers who helped off-load our luggage. We were immediately shown to our allocated rooms in a house we were to share with the deputy headmaster and given keys to our separate entrance. The female teachers quickly showed us the women's ventilated pit latrines.

Across the terrain, I saw villages near the New Gato Wetland Project site. After about two hours of cleaning and unpacking, the female teachers asked us to accompany them to the local water sources: for bathing water. We had to draw water from the river bed because, they said, the borehole water at the secondary school had rust residue. We had to travel 5 kilometres to the primary school for clean drinking water. Fortunately, for our first day the teachers had organised some water for us. After finishing all the necessary chores and settling in our 'little villa', I decided to call it a day and sleep.

Early next morning my research assistant and I began our journey to the NGWP site. I was excited as we carefully made our way through small paths in the bush. I heard birds singing and various sounds coming from the villages. It was so peaceful and I enjoyed walking as I looked at various trees. We crossed a small stream, balancing ourselves on small stepping stones carefully placed there. We met secondary school children as they ran to the school from where we were coming. They greeted us but one could tell they were wondering who these 'strangers' were. Arriving at the village nearest to the NGWP site, we headed to the house of one of the wetland project members whom I had been introduced to during my first exploratory trip to Mufiri. On seeing us, she started yelling 'welcome, welcome my daughters'. I smiled and knew in my heart that this was the beginning of a not-so-easy but important journey.

Picture 6: Our place of residence at Gato Secondary School

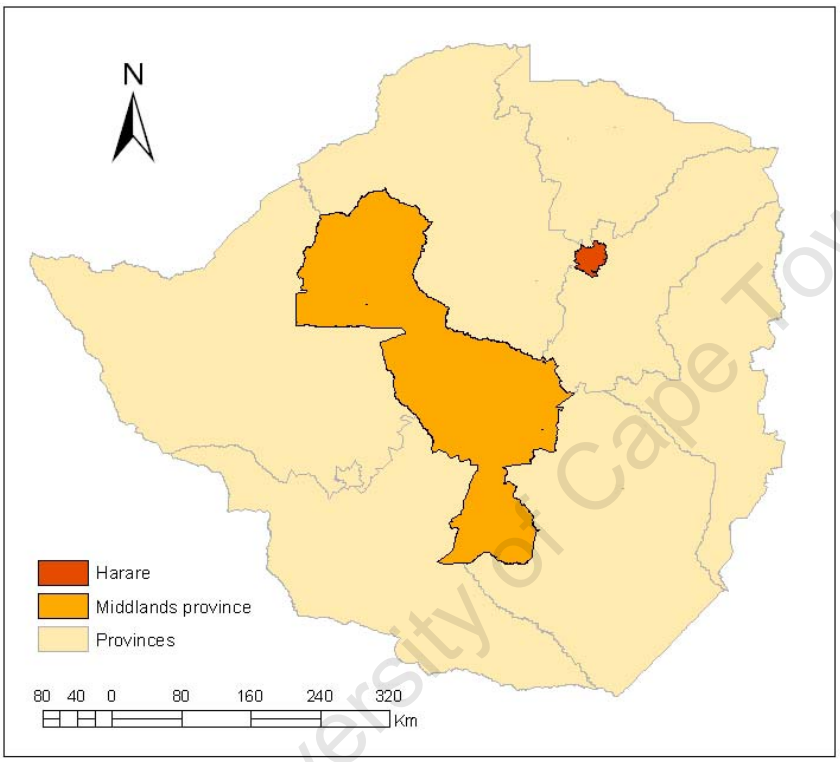
In this chapter, firstly I introduce the fieldwork site background information so as to shed light into the political, social and economic aspects of Mufiri Ward. After the background information, I discuss in detail the methodology for the study.

2. Study Area: Mufiri Ward

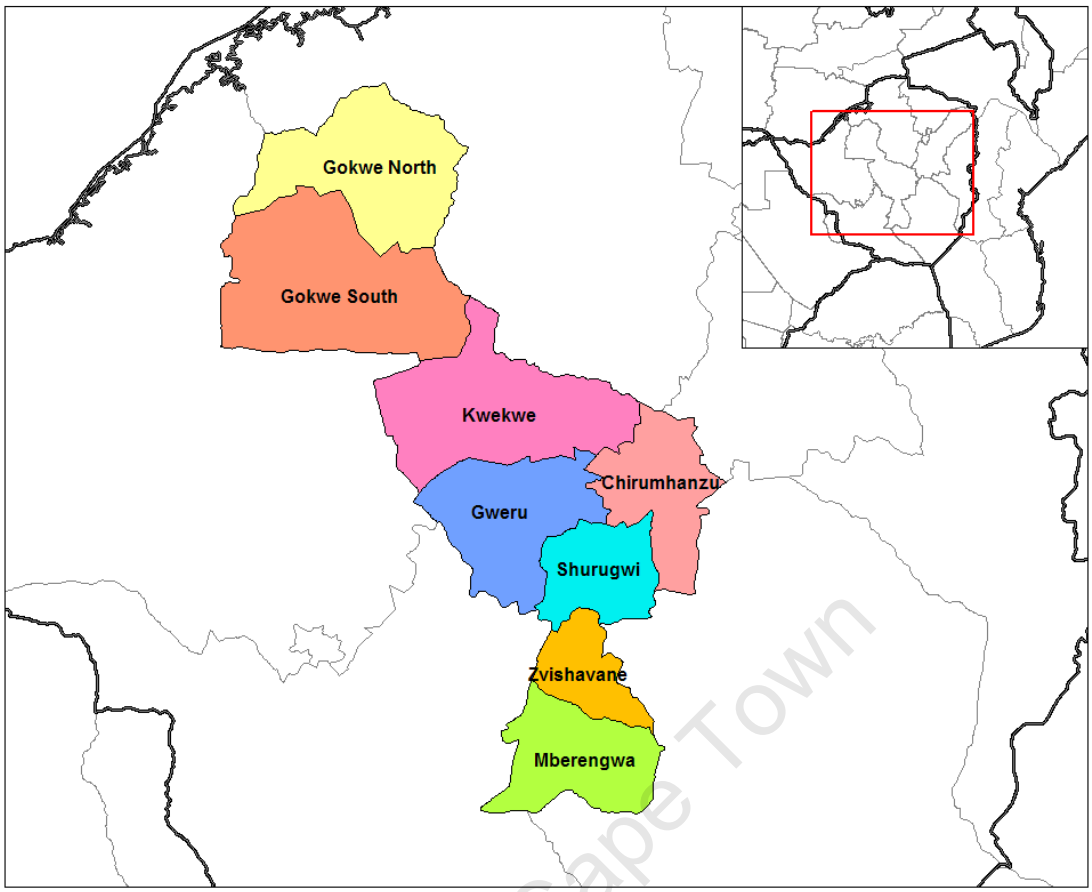
The fieldwork for this study was carried out in Mufiri Ward[20] of Shurugwi District in the Midlands Province in Zimbabwe. Mufiri comprises a set of 34 villages that together constitute Ward 5 of the Tongogara Rural Council's area of jurisdiction.

[20] A ward is the lowest government administrative structure in Zimbabwe (Rukuni 2005). I will refer to Mufiri ward as Mufiri throughout my thesis.

Mufiri is located about 60 kilometres east of Shurugwi town and 360 kilometres south of Harare, Zimbabwe's capital city. The New Gato wetland catchments area includes 9 villages: Mhini, Taru, Mufiri B, Mbizvo, Chiriya A, Chiriya B, Mutandavari, Rusike and Mupanduki. The wetland project is situated in Chiriya A village: see Map 1 showing the 8 provinces of Zimbabwe including Midlands Province. Map 2 shows the various districts found in the Midlands Province including Shurugwi District. Map 3 shows the location of Mufiri Ward and Map 4 shows Mufiri Ward.

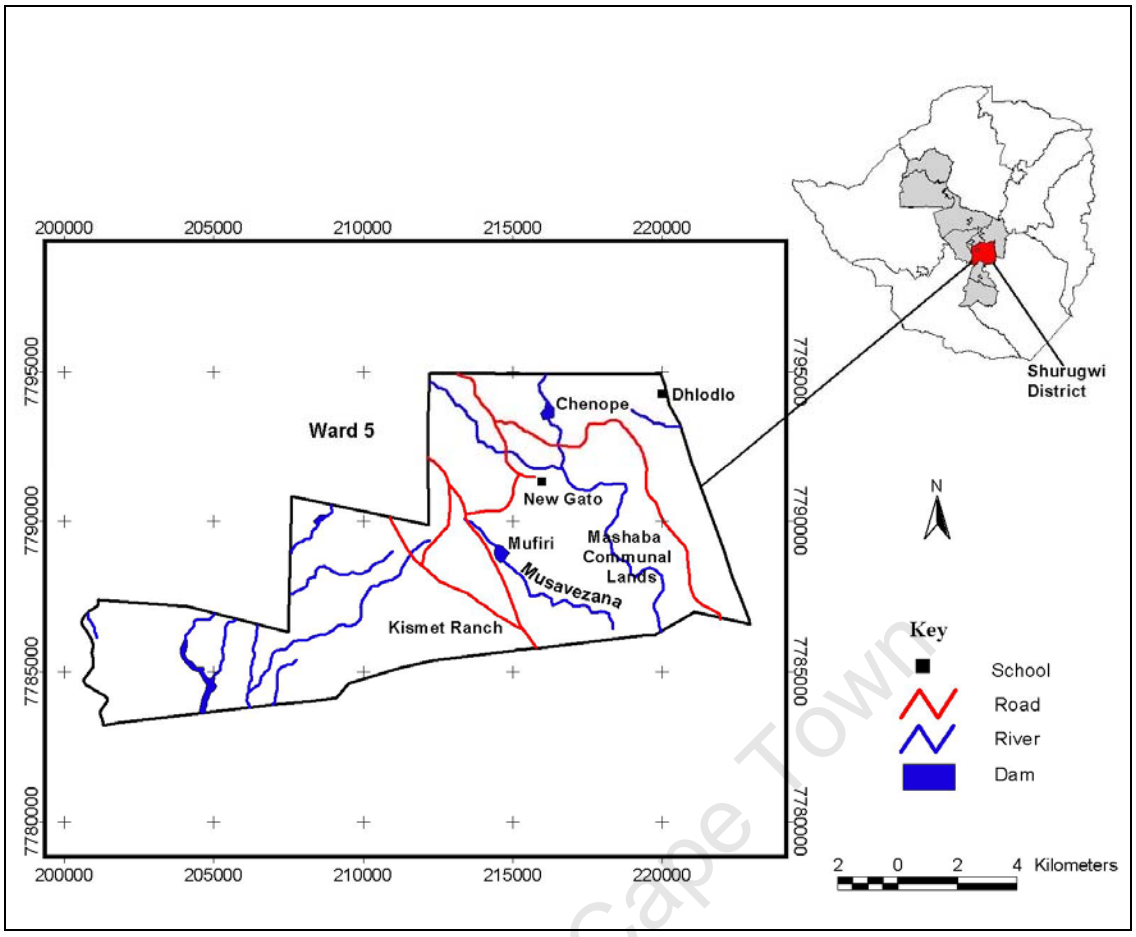


Map 1: Eight Provinces of Zimbabwe including the Midlands Province.

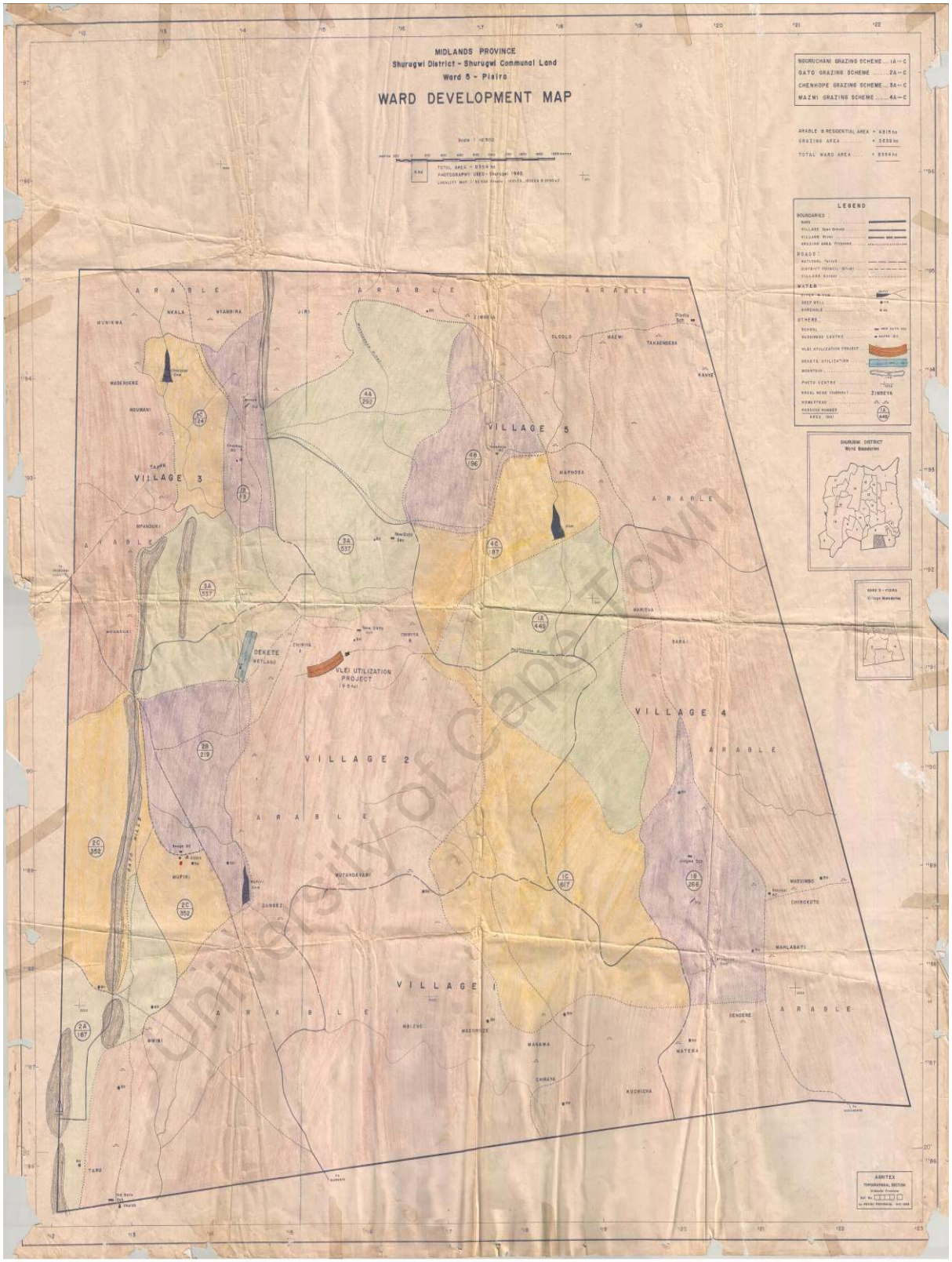


Map 2 showing the Districts comprising the Midlands Province of Zimbabwe.

Research was carried out in Shurugwi District (in turquoise colour on the map)



Map 3: Map of Ward 5 in Shurugwi District with an insert of Zimbabwe showing the location of Shurugwi which is in the Midlands Province represented in grey colour. The intra-province lines represent district boundaries.



Map 4: Scanned image of Map of Mufiri Ward drawn by Agritex Topographical Section, Midlands Province 1999.

Mufiri is in one of what are known in Zimbabwe as communal areas – formerly known as Tribal Trust Lands (Rukuni et al 2006). Mufiri Ward, also known as Ward 5 or Pisira, had a recorded population in 2002 of 3,519 comprising 1,661 males and 1,858 females living in 723 households with an average size of 4.87 people per household (Zimbabwe Census 2002, Midlands Provincial Profile Report: 2004). The total ward area is 8,354 hectares of which 4,815 hectares is arable and residential land. Grazing land (communal) constitutes a total of 3,539 hectares divided into four grazing schemes (Agricultural Technical and Extension Services 1999).[21] Households in Mufiri are allocated homestead sites of about 0.4 hectares where they can build their houses whilst farming the remaining piece of land. They are also allocated fields about two to three kilometres away from the village, fields which range in size from 1.6 to 2.5 hectares. In addition, they have access to communal grazing areas and to boreholes from which they can draw water both for domestic purposes and to water their stock.

Land in Mufiri ward formally belongs to the state but is occupied by small–scale farmers. Residents are subject to the authority of a chief, Chief Banga, who has the power to allocate land but delegates the task to local village headmen. Present land tenure relations in Mufiri are governed by the Communal Land Act of 1982 which stipulates that land is to be allocated to people that have traditionally and continuously occupied land in that particular area and allocation of land is done according to the customary law of the community (c.f. Cheater 1990: 201).

Local people in Mufiri have usufructary rights and not full freehold. The sale of communal land by individuals or any individual transfer is thus illegal (Cheater 1990; Madondo 2000). Farmers had neither private land ownership rights nor title deeds. Land rights in Mufiri were in the hands of men which thus gave them primary access to land. Women had access to land through men and not directly in their own capacity; hence they had secondary access to land.

According to one local respondent, the ward was named after the then local chief's great grandfather who was nicknamed Mufiri after helping his friends in a war. Mufiri means 'one who is willing to die'. I was provided with various accounts of when people first settled in Mufiri from 1930. According to a grandson of the local chief,

[21] AGRITEX

the first occupants were people that originated from what is now Mutoko District, which is to the north of Mufiri Ward. Mutoko District is in Zimbabwe's Mashonaland East province about 160 kilometres from Harare. Those who came to settle were led by a man called Banga who was believed to be the son of Chief Mutoko of the Shumba (lion) totem. When Banga settled in Mufiri, he was selected by his followers to become their chief. The chieftaincy has over the years remained in the Banga family. When I started my fieldwork I had to seek clearance from Chief Banga. He confirmed the story about the origins of his family and he spoke of his great grandfather having first settled in what is today Chirumhanzu District, just north of Mufiri ward, and then later settling in the present day Mufiri ward. He spoke of his family as a 'family of conquerors' who migrated all the way from 'the north of Rhodesia'[22] fighting wars along the way and finally settling in present day Mufiri. I discuss below the roles of the chiefs and other local leadership structures in Mufiri.

During the colonial period Mufiri ward was part of the native reserves which were created in terms of the 1898 Native Reserves Order in Council. In 1965, after the passing of the Tribal Trust Lands Act, areas like Mufiri became known as Tribal Trust Lands (TTL). After independence, the Communal Lands Act was passed in 1982 which saw TTLs becoming known as Communal Areas and land authority being transferred to district councils from traditional leaders.[23]

During the time of my fieldwork, Mufiri ward had a clinic and four business centres that included various scattered grocery and beer shops. Mufiri's main business centre, also its main shopping centre, included a clinic and a community hall. The ward also has five schools: three primary and two secondary. The clinic in Mufiri was small and lacked equipment and medicines. Most local people were commonly referred to Zvamavande Rural Hospital located 40km from Mufiri. This hospital was the referral centre for all other clinics in the area.

Two big rivers run across the ward, Musavezana and Chenope Rivers. A total of 18 communal boreholes are scattered across the ward although most had either dried up or broken down during the fieldwork period. Various wetlands lie scattered across the ward which receives an average annual rainfall below 700mm (Rukuni et al 2006).

[22] The colonial name for Zimbabwe. Chief Banga was referring to the colonial period when his great grand fathers migrated from the north of present day Zimbabwe.
[23] Available at http://www.lands.gov.zw/landreform/landreform.htm (accessed 26 May 2008).

Residents derived their livelihood mainly from small-scale farming and other small income generating projects, supported in part – especially in the past – by remittances from absentee labour migrants. Many studies carried out in Southern Africa show that remittances play a big role in the rural economy and in enhancing the livelihood of local farmers (Mayer 1980; Spiegel 1980).

Farmers in Mufiri reported that over the past 15 years their ward and Shurugwi District had suffered from recurrent droughts and consequent low production. Persistent drought has not been the only challenge for local people. HIV and AIDS has proved to be a force that has presented problems as well. Mufiri ward has not been spared the effects of the HIV and AIDS epidemic that has spread throughout the continental sub region. Since the local clinic had no voluntary counselling and testing (VCT) services, and since no antenatal testing was done there, there were no available precise figures of local prevalence rates. They were, however, not likely to be far off the national and district prevalence rates – as measured in Zimbabwe through such indicators such as testing of pregnant women who attend antenatal clinics throughout the country (Zimbabwe Human Development Report 2003). Those rates are: nationally 15.3 percent; Shurugwi District: 17 percent. The UNAIDS 2009 reports indicate that Zimbabwe has experienced a steady fall in HIV prevalence rates since the late 1990s when the prevalence rate was around 25 percent. This decline has been attributed to changes in sexual behaviour.[24]

Since Zimbabwe's independence in 1980, Mufiri ward has benefited from various development initiatives, introduced there by both government agencies and donors working through local and international NGOs. In times of drought, organizations such as Christian Care and Oxfam, as well as the state's Grain Marketing Board provided food aid to local people. Local people benefited from the construction of a dam for irrigation purposes, the NGWP, what was known as The Heifer Cattle Project, a University of Zimbabwe run water harvesting and maize trials project, introduction of treadle (*chitsoka* –feet) water pumps by Christian Care and various farming inputs and marketing schemes initiated by Zimbabwe's Ministry of Agriculture and Rural Development.

[24] http://data.unaids.org/pub/FactSheet/2009/20091124_FS_SSA_en.pdf (accessed 20 July 2010)

3. Traditional and local government leadership structures

A dual system of leadership, including both 'traditional' and bureaucratic governmental structures exists in Mufiri. The structures are supported by legislation that include the Provincial Councils and Administration Act No. 12 (Revised edition of 1996), Rural District Councils Act (Revised edition of 1996) and the Traditional Leaders Act Chapter 29:17 Number 25 of 1998 The Constitution of Zimbabwe also provides for the establishment of traditional leadership in Zimbabwe (EISA Report 2007:79). The head of state appoints traditional leaders who have been selected at local levels according to customary laws. According to Chief Banga, the 'royal family' know the potential heirs to the throne in the family structures. When a chief dies, the family deliberates on the 'new chief' and the name is forwarded through the district and provincial structures for approval and appointment by the head of state. In Table 1 below I present the different leadership structures that exist from national to ward levels such as in Mufiri.

	ZANU PF Party Structures	**Government Structures**	**Traditional Leadership**
National Level	*Politburo*	*Office of the President, Cabinet & Parliament*	*Office of the President*
Provincial Level	*Provincial Committee*	*Midlands Provincial Council*	*Council of Chiefs*
District Level	*District Committee*	• *Member of Parliament* • *Shurugwi Rural District Development Committee*	Chiefs (S)[25] • *Chief Nhema (S.N)*[26] • *Chief Banga (S.S)*[27]
Mufiri Ward	*Ward committee*	• *Councillor* • *WADCO*[28] *b* • *VIDCO*[29]	• *Chief's Representative (Subchief)*[30] • *Ward Assembly (comprising village headmen)* • *Village Assembly (headman)*[31]

Table 1: Traditional, Party and Local Government structures.

4.1 Political Party Structures

During fieldwork, ZANU PF was the only political party that had local structures in Mufiri ward. One must bear in mind that rural areas in Zimbabwe until recently were

[25] Shurugwi district
[26] Shurugwi district is divided into two areas of traditional jurisdiction. Shurugwi North is under the jurisdiction of Chief Nhema and Shurugwi South under Chief Banga.
[27] Shurugwi South.
[28] Ward Development Committee (Madondo 2002).
[29] Village Development Committee (Madondo 2002).
[30] Locally known as a '*sadunhu*'.
[31] Locally known as '*sabhuku'*.

strongholds of the Zanu PF party.[32] Opposition parties such the MDC[33] were not openly represented in Mufiri. An example of the extent of the area being a ZANU PF stronghold occurred during fieldwork in 2007 during the run up to local government elections. A local man who was renting a shop at the local shopping centre announced that he was running as an MDC candidate. Within a day he was ordered by the owner of the shop, a strong ZANU PF supporter, to vacate her shop. Some local people spoke for days about the man being a traitor. Through informal discussions I learnt that some local people were secretly supporting the man as a MDC candidate and were whispering that it was time for change. While this was happening, a meeting was called by the local ZANU PF leadership to 'warn the people' about the dangers of having such traitors in the ward and for people not to be misled. This particular incident confirmed the strength of the stronghold ZANU PF party had on local people.

ZANU PF was most obviously represented in Mufiri at ward level by the ward-level party committee. This committee comprised a chairperson, vice chairperson, treasurer, secretary, women and youth representatives. The committee ensured that ZANU PF's interests were represented and that the ruling party's interests were met and protected at local level. Its members were responsible for campaigning and mobilizing villagers, for monitoring village activities and addressing opposition threats, and for reporting on party events and activities. The same people that were in the local ZANU PF committee were also in the local leadership and government structures such as the WADCO, VIDCO, ward and village assemblies. Such infiltration of local government structures such as the VIDCO and WADCO by ZANU PF in various parts of Zimbabwe was also documented by Madondo (2000:12) who argued that such an infiltration had reduced local government structures to carry the stigma of being ' politically sponsored institutions that have no clear bases in history'.

4.2 Traditional Structures

Chiefs play an important role in the leadership structures of rural areas in Zimbabwe. The role of chiefs in Zimbabwe has its roots in the pre-colonial period and during the colonial era when they were incorporated into local government structures by the

[32] Zimbabwe African National Union Patriotic Front
[33] Movement for Democratic Change is the strongest opposition party in Zimbabwe

colonial government as part of their indirect rule policy (Madondo 2000). Consequently, initial postcolonial attitudes to chiefs treated them with suspicion because of their role during the colonial era. They were thus initially stripped of some of their duties and power, especially that relating to land allocation. However after the passing of the Traditional Leaders Act of 1998, chiefs have slowly regained the power to allocate land in their respective areas of jurisdiction (EISA Report 2007). Shurugwi district had two chiefs, Chief Nhema who ruled over the northern part of the district and Chief Banga in the southern part. They are responsible for the various wards that are in their respective areas of jurisdiction. Mufiri ward was under the guardianship of Chief Banga who stayed in the next ward to the west.[34]

Chief Banga was represented in Mufiri by a sub-chief or *sadunhu* called sub-chief Mufiri who represented the chief at local activities, meetings and gatherings in the ward. The sub-chief ensured that the schools and clinic were operational, local people had access to clean water and that local traditions such as rainmaking ceremonies were upheld.[35] The sub chief reported to the chief on all matters affecting the ward. If there were matters that needed the input of Chief Banga, the sub chief would invite the chief to Mufiri Ward. For example, I repeatedly observed the chief attending meetings to discuss problems affecting local schools and the clinic. I attended one such meeting at a local primary school with infrastructure related problems that Chief Banga had been invited to come and see for himself, and to discuss with parents and school teachers. The school's classrooms and staff houses were dilapidated and there were no adequate books and teaching aids. After carefully listening to the problems and touring the school, the chief promised to take the matter up with the local Member of Parliament. The chief not only attended to meetings such as the one described above but also attended joyous functions such as farming field days.[36]

[34] The Chief stayed in Banga ward. After one of the school meetings the Chief attended in Mufiri, I offered him a lift and I drove about 50 km to his home in Banga ward. On our way to his home, the chief spoke about politics, development, the NGWP and asked questions about my research. He then invited me to pay him a visit on another day and discuss my research and development work he was doing in the area. When I told my case families about my trip with the chief, they told me it was an honour to drive the chief and to be invited to his home.

[35] A rain making ceremony was held during fieldwork but women were not allowed to visit the shrine at the top of one of the local mountains where the ceremony was held. Therefore, I could not witness the proceedings. Women only participated in brewing beer for the ceremony and then a few men including the sub chief went up the mountain with beer and grain in calabashes to perform the rainmaking rituals. Local people confirmed that the ceremony was a 'last minute' ceremony after the chief had sent a word that people had to do it. It was therefore not as the ones that had been held before that included big gatherings, singing, dancing and the ritual at the mountain.

[36] Days organized by farmers and AREX officer to show-case their crops and sometimes give awards to farmers who have excelled in farming.

Each of the 34 villages in Mufiri was led by a village headman or *sabhuku* who was also the ex-officio chairperson of the village assembly. Each village assembly comprised all village residents above 18 years of age. Its main function was to discuss matters related to tradition and customs, land, water and other natural resources. Among the topics I heard being discussed at village assemblies were those pertaining to deforestation and pastures for cattle.

Village assemblies reported, through the headman, to the ward assembly which comprised all the village headmen and was chaired by a ward assembly chairperson. The ward assembly discussed issues such as village tax, customary law, land and development of the area. The ward assembly reported to the sub-chief who sat in on all ward assembly meetings. The sub chief in turn reported to Chief Banga who came once, during my fieldwork period, to address a ward assembly meeting. Issues discussed ranged from dysfunctional boreholes, land allocation, lack of medicine at the local clinic and keeping village population records up to date.

4.3 Local government structures

In parallel with the traditional leadership structures, there were also local government structures in Mufiri. They included the office of the elected ward councillor, the elected ward development committee (WADCO) and, in each village, an elected village development committee (VIDCO) – the lowest level of government administration. According to Madondo (2000) these structures were established in Zimbabwe's communal areas in order to incorporate rural subsistence farmers at sub-district level into the district local governance framework. During fieldwork, it became clear that the different leadership structures in Mufiri often performed overlapping roles and activities. For example when I attended a WADCO meeting, they discussed the issue of repairing communal boreholes. The same issue was also discussed when I attended the village and ward assemblies. It became apparent that all the committees were working towards repairing the boreholes instead of delegating one committee to handle the issue of boreholes. The local government structures had been instituted by the Provincial Councils and Administration Act No. 12 and, in particular, in terms of section 59 of the Rural District Councils Act which states that each WADCO shall be presided over by an elected councillor who also

represents the ward at district level and reports to the Rural District Development Committee (RDDC).

During my fieldwork I had an opportunity to witness the work of two councillors. The first's term of office ended during the first year of my fieldwork. A woman councillor was elected to replace him and it was the first time in the ward to have a female councillor. The councillors worked closely with the VIDCOs and the WADCO. The VIDCOs in Mufiri were responsible for identifying their respective villages' needs and proposing an action plan. The concerns of four VIDCOs in Mufiri that I had informal discussions with centred on the provision of clean water, lack of staff and medicine at the local clinic and lack of development projects in their area. Each VIDCO was presided over by its own elected chairperson and reported to the WADCO whose chairperson, the elected ward councillor, then forwarded the various development plans to the RDDC. I attended several WADCO meetings where agricultural and income generating projects and later, food aid, were the main issues discussed. Local people said that they wanted the councillor to bring infrastructure, dams, farming projects and electricity to their homes. In their arguments, local people measured what they called for as development in Mufiri with what they had heard was happening in other wards close to them. Having discussed the background information for Mufiri ward, in the next sections I focus on methodological aspects of the study.

4. Ethnographic Approach

Ethnographic fieldwork for this study was undertaken in Mufiri Ward for 16 months from April 2006 to July 2007. Fieldwork 'stresses the continuous presence of a researcher in the field' (Gobo 2008:11). Together with my research assistant, a young woman from Gweru where I was brought up, I was accommodated at Gato secondary school, which is located in one of Mufiri ward's 34 villages. Living there provided us the opportunity to be in and around the villages on most days, and to return to a space with electricity for word-processing, downloading photos, recharging our camera batteries and updating our field journals at night. During the time I stayed in Mufiri I was able to build relationships with various social actors and also participated in their everyday activities, meetings and ceremonies.

Ethnography has been described by various authors as a way of looking, a way of seeing and a way of writing (Roth 2005; Wolcott 1990). According to Roth (2005: 86), ethnography 'concerns itself with scientific description of cultures, with their customs, habits and points of reference'. Silverman (1993:60) describes ethnography as 'seek[ing] to understand the organization of social action in particular settings'. Being located in the village for an extended period allowed us to engage in precisely those kinds of activities.

According to Gobo (2008:6) 'ethnography requires the researcher to participate in the social life of the actors observed, while at the same time maintaining sufficient cognitive distance so that he or she can perform his or her scientific work satisfactorily'. According to Fetterman (1989), what enables an outsider to understand why members of a social group do what they do and accurately describe their situations and behaviours is developing an ability to understand and make sense of the insider's or emic perspective of reality. I attempted to achieve a sense of such an emic perspective through using an ethnographic approach whereby I stayed with local people and participated in their daily lives both as a participant and as non participant observer. Working directly with and participating in local activities, I sought the means to explore issues of local level politics, to discover details about children's work, especially in the informal wetlands, and about issues of HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immune Deficiency Syndrome) – all concerns I would not have been able to explore had I not been staying in the ward.

Having explicitly decided to use an ethnographic approach meant that I spent extended periods of time with local people, specifically those who had been involved with the NGWP, but also with those who depended on dry land and informal wetland farming. This gave me firsthand experience and opportunity to explore and observe how local people had constructed their ways of living and how they practised gender relations in the context of the *Ngwarati* system. The approach allowed me to observe and hear about how the development initiative had affected people's lives, and to discover, explore and trace unintended spin offs from the NGWP. Using an ethnographic approach was useful for gaining a perspective on the processes and contexts within which local people were striving to sustain their livelihoods and into the gender dynamics associated with their efforts.

5. Sampling: Selection of site and respondents

Various sampling techniques were used in selecting the study site and the respondents. In Zimbabwe the *Ngwarati* tillage system was implemented at eight sites across the country. The Mufiri site was selected purposively through my formulating various criteria to use in selecting the site. They were that the site had to be:

- A wetland which had *Ngwarati* broad ridges and broad furrows successfully constructed.

  Some other potential sites were still under construction and yet others had been completely abandoned due to lack of specialized equipment and current economic hardships.
- Operational: the project had to have been operational for at least two years so that I would be able to explore the perceived benefits of the project in local people's lives.
- Such that I would be able to obtain permission from local political and traditional leaders to carry out a study over one to two years.
- Such that I would be able to obtain permission from local agricultural and extension services personnel.
- One where no social research or social studies had been carried out after the implementation of the project or were currently being done
- Easily accessible by public transport

After reviewing the eight potential sites in the country, and applying the above criteria to them, I selected the New Gato wetland scheme because it met all of the above requirements.

The study population included households that practiced the three different types of farming that I was interested in, namely, informal wetland farming, rain fed farming and *Ngwarati* technology-based wetland farming such as through the NGWP. All the 723 households in Mufiri, as in all communal areas in Zimbabwe, practiced rain fed farming. According to the AREX officer's records, only 61 households practiced informal wetland farming since few households had access to the few small areas of wetlands outside the NGWP area. Initially 78 local people, representing 78 households, were reportedly involved in the NGWP but, when I started fieldwork,

only 28 were still actively involved. All the 78 NGWP participants also practiced rain fed farming while one also practised informal wetland farming.

Given the presence of these three kinds of farming I selected villages within the ward where there were people practising each of these kinds of farming as my three primary village research sites. In order to collect detailed data I narrowed my research focus to include just 12 households as the main case studies from the three sites. Simply random sampling was used to select the dry land and NGWP case study households. For this sampling technique 'each element in the population has an equal, independent chance of being selected for the sample' (De Vos et al 2005: 196). For the dry land site I defined the sample as farmers that were only involved in rain fed farming only and not wetland farming. For the NGWP case studies the population was defined to include only the current members of the project. Once I defined the population, I used simple random sampling to select the four key respondents for rain fed farming case studies and four key respondents for the NGWP case studies. The four key respondents from the informal wetlands were selected by using a snow balling sampling technique of a kind whereby 'each person interviewed leads the researcher to the next person or persons, based on a designated set of criteria' (Bernard 1998:705). Throughout the thesis, I will refer to these households as my case studies. Weekly visits were made to the 12 households whose residents constituted my primary respondents. Of my total sample of 12 households, the primary respondents were the household heads, who were either male (7) or female (5).

I also interviewed and observed respondents such as various NGWP committee members, the chief and sub-chief, the village headmen of the three sampled villages, councillors and the local AREX officer, who had special responsibility for the NGWP. During fieldwork, I was also able to interact with many villagers who became informal respondents and provided me with useful pieces of information.

6. Fieldwork Methodology

The research methods I used during fieldwork were those commonly used by those who adopt an ethnographic approach. My activities included staying in Mufiri and participating in the life and activities of local villagers through participant and non

participant observation. I was able to conduct both in depth interviews and informal discussions with the respondents. I spent expended periods observing, interviewing and having informal discussions with the different respondents. Using such methods allowed me to explore the research questions I had in relation to the NGWP and its contribution to local livelihoods and gender relations.

By using observations and in-depth interviews as well as participant observation I was able to 'uncover unintended as well as intended consequences' of the NGWP (Barbour 2008:13). For example, after a couple of weeks in the field and through informal discussions, I discovered that some farmers had adopted some of the skills and technology from the NGWP and adopted them in their informal wetlands and dry land farms. This happened after I had introduced myself and explained my interest in the wetland scheme and when some women informed me about the informal wetlands and volunteered to take me to the villages to see how those were being worked. I discuss these issues in detail in Chapters V and VI.

Below I describe in detail the various methods I used to collect data that was crucial in seeking answers to the research questions that I had at the beginning of my fieldwork. As I used some of the methods such as observations and in-depth interviews, I unravelled some interesting data such as technology transfer, causes and manifestation of conflict in the NGWP. Such data resulted in my altering some of my initial research questions and broadening the scope of my study. Using various research methods also enabled me to validate the data I gathered through the process of triangulation (Mwanje 2001). For example, after observing certain phenomena such as the work of children in informal wetlands, I followed the issue in detail during my in depth interviews with the children and later with the parents.

6.1 Observations

Throughout my period of fieldwork, my days were filled with observing activities that were occurring in Mufiri. My observations were mostly based on what Marshall and Rossman (1995:79) describe as 'the systematic noting and recording of events, behaviours and artefacts (objects) in the social setting chosen for the study'. Staying in Mufiri Ward enabled me to be a participant observer of local village life and activities, villagers' livelihood strategies, their gender relations and NGWP activities. I was particularly interested in activities that were related to wetland and rain fed

farming such as the farmers' meetings or gatherings, farming field days and taking part in various farming activities at individual household and project levels. Attending such meetings and participating in such farm-related activities enabled me to gather data about the NGWP and make observations about gender relations and local level politics. In some instances, I also attended local political meetings so as to familiarise myself with the local power structures.

During the first two months of my fieldwork, I relied mainly on observations, asking few direct questions and working to create good rapport with the ward residents. Slowly, I also began to be involved in participant observation as local villagers started feeling comfortable with me 'hanging out' around them. According to Bernard (1994:151) 'hanging out builds trust and results in ordinary conversation and ordinary behaviour in your presence'. The initial two months of settling in and just observing had many advantages for my fieldwork. I managed to create rapport with local people. I also got to know who was who in the ward and people began to know me as 'one of them', all of which helped to avoid unnecessary questions which I might have asked had I started fieldwork with simply asking questions. The other advantage of such a settling in period is that one avoids coming to be seen by local people just as an interrogator or investigator. As one settles in, local people begin to perceive one as someone almost 'local'; someone who has come to stay and who is interested in certain issues rather than just a researcher. Doing this helped me to create relationships and networks well before I started to explore my main research questions, and the networks soon became useful as I progressed.

I realised during field work that observation was a powerful research tool that enabled me to record and gather data about many activities in relation to my research questions. It enabled me to verify some of the information I was being given by my respondents and other villagers.

An example of particular interest is the story of two children who were involved in informal wetland farming. During my initial visit to their respective households, I was told that they had just missed school for those few days. After repeated visits and observation of these households, however, I noticed that these children were not attending school at all. Later the parents confessed that they had stopped the children from attending school so that they might help with farming activities.

Such daily observations throughout my fieldwork yielded much of what I would call unspoken data. In addition, participant observation proved to be useful for exploring topics like local level politics, HIV and AIDS and the work of children which most local villagers seemed uncomfortable to discuss. For example, local villagers did not talk openly about bed–ridden family members suffering from HIV and AIDS but, through participant observation, my assistant and I came to meet these sick relatives and to see them deteriorating and, for some, ultimately dying. Participant observation enabled me to obtain first-hand experience with informants and I could record information as it occurred.

Participant observation enabled me not only to hear about people's perceptions of the effects of the NGWP but also to observe what I came to recognise as 'positive spin offs' like the development of informal wetlands and the introduction of certain water conservation techniques associated with the *Ngwarati* technology in rain fed farming activities.

I was also able to participate in wetland and dry land agricultural activities. With my research assistant, we participated in farming activities that the different households were engaged in and this also helped cement our relationships with them. Of interest is how the chairperson of Area Farming Club,[37] himself a farmer, mentioned repeatedly at various meetings how he was fascinated and pleased by us being involved in the harvesting of his maize crop while we 'chatted' with him about the history of Mufiri. We also participated in most of NGWP activities that occurred, including meetings.

Despite the advantages of participant observation as a method, it also has limitations. As a researcher one may sometimes be seen as intrusive and sometimes one gains access to 'private' information that one cannot report (Mwanje 2001:29). This was evident during some of our early visits to people's homes when we would arrive at a homestead and, having been allowed in, then feel we were intruding into private space. I vividly recall a visit we paid to one of the informal wetland case studies. We were unaware that they had extended family visitors and when we arrived, they were

[37] The local structure of the Zimbabwe Farmers Union.

in the middle of a seemingly serious family discussion. They had to explain to their visitors who we were and what our purpose was. I felt uneasy and out of place.

6.2 Field Notes

As we carried out our observations, my assistant and I both took fieldwork notes relating to issues we heard, observed and experienced within the local village and beyond. Each day I wrote detailed field notes especially about issues concerning the NGWP and the gendered effects of its implementation on local livelihoods. I kept a journal in which I noted what I thought about or reflected on regarding activities that were taking place in the ward and documented for myself how they might be understood so that I could address my primary research questions. I also jotted down points that enabled me to 'reconstruct.., interactions, short conversation and events' (Field and Morse 1995:112) that were occurring on a daily basis, and during the times I would not have formally taken notes.

6.3 Transect walk

In order to collect all the necessary data I also had to rely on other methods to complement the observations that we were making during fieldwork. During the first week of fieldwork we were able to do a transect walk across Mufiri Ward as a whole. According to Bernard (1994:140) a participatory transect walk involves 'systematically walking through an area, with key informants, observing and asking for explanations of everything' one sees along the way. Our key informant was an agricultural college student who had grown up in Mufiri. The main aim of our transect walk was to familiarize ourselves with the ward and its component villages.

6.4 Unstructured Interviews

The data I collected through participant observation was explored further through unstructured interviews that I used to obtain as clear a picture as possible of people's perceptions of the effect of the NGWP on their lives in the ward, on informal wetlands, on rain fed farming and on gender and power relations. I chose to use unstructured interviews because they yield useful information where informants cannot be directly observed, and also enable informants to provide historical information. This method, as Mwanje (2001) argues, allowed me to have control over the line of questioning. Unstructured interviews with the use of aides memoire

entailed in-depth interviews with various respondents on issues relating to the NGWP, to informal wetland farming, to rain fed farming and to local level politics. (See Appendix I showing the livelihood analysis questionnaire). Use of this kind of free flowing type of interview also allowed me to gather data on gender relations, at both project and household levels. Data on livelihood patterns and perceived benefits of the NGWP were also collected using unstructured interviews. Men and women were asked to talk freely about their livelihood activities and how they were making a living in order to sustain their households. Unstructured interviews were also used with other respondents like the ward councillors, chief, sub chief, various headmen, school headmasters and the AREX officer.

I also used semi-structured interviews, with an aide-memoire of questions rather than a full question schedule, to identify and document household livelihood strategies and utilization of resources. (See Appendix II showing the wetland members interview guide) Data on socio economic, and gender effects of the *Ngwarati* system was collected using unstructured interviews, observations and focus group discussions. Semi-structured interviews have the advantage that open ended questions can also be included which allows for further probing.

6.5 Case Studies and Household Diaries

During fieldwork I realised that I could not collect all the data I needed about the case studies' household activities through observation and interviewing. I then decided to introduce what I called case study diaries. Each of the 12 case study households was given a notebook and asked to record daily activities and sales from their crops, gardens or livestock for the duration of 12 months. Every member of the household was allowed to enter their daily activities in the diary. During our weekly visits to each home, I would go through the diary and discuss issues or points I needed clarification on. Ten of the case families were enthusiastic about their diary and commented that it helped them to keep track of their sales and planting dates and of other agriculture-related information. However, two case families were less keen on the diaries and quite often failed to record their activities. I had thus to encourage and remind them often to record all their activities in the diaries. Children from the 12 case families were also given diaries to record their activities and write stories about their lives – information that I have used in Chapter VI to show the importance of children's work in the informal wetlands.

6.6 Life Histories

Data for life histories of my primary respondents from the selected case studies was generated through the in-depth interviews that I held with them. Initially I had asked the key respondents to write their life histories in their diaries. After reading these diaries, I then interviewed the respondents to clarify and probe further on some of the issues they had written about. I spent about a minimum of two hours with each key respondent interviewing them about their life history. This activity provoked a lot of interest from the respondents who were keen to go down memory lane and one key respondent smiled as he recalled how he met his wife 'back then'. Such activities as outlined above helped to create good rapport with the case study households with the result that some other local people became keen to participate in some of my research activities. The data generated was useful in giving detailed background information about the case families – data that provide an important backdrop in discussions in subsequent chapters.

6.7 Focus Group Discussions

In order to collect data about some key issues pertaining to the NGWP, local level politics and gender relations, I decided to make use of focus group discussions (FGDs) and stimulate discussion and comment around various topics. According to Mwanje (2001:34), FGDs are 'informal interviews with small groups zeroing on specific topics or subjects' (Mwanje 2001). FGDs were used to discuss various key issues including discussions with project members on the operations, structure, activities and decision making processes and gender relations within the NGWP. A total of 16 FGDs were held with various respondents. Table 1 below shows the FGDs we held, the topics we discussed and gender distribution of participants.

Number of FGDs	Topics Covered	Gender & Respondents details
Three	Implementation of the NGWP, structure, operations, committees and role of extension and research officers	Mixed (men and women) • Group 1 (5 women & 2 men) • Group 2 (7 women & 1 men) • Group 3 (4 women & 3 men) NGWP members only
Two	Influence of local level politics and conflict in the NGWP	Mixed • Group 1 (8 women & 3 men) • Group 2 (7 women & 3 men) NGWP members
Two	Success and collapse of the NGWP	Mixed • Group 1(10 women & 3 men) • Group 2 (6 women & 4 men) NGWP members
Two	Informal wetland farming	Mixed • Group 1 (6 women & 6 men) • Group 2 (5 women & 8 men) Informal wetland case studies representatives and local farmers involved in wetland farming.
Two	Rain fed farming	Mixed • Group 1 (7 women & 6 men) • Group 2 (9 women & 4 men) Dry land case studies representatives and local farmers involved in rain fed farming
Two	Challenges of various kinds of farming with case families	Mixed • Group 1 (3 men & 3 women) • Group 2 (4 men & 2 women) Case studies representatives
Three	Gender and power relations	1 Mixed , 1 for men and 1 for women • Group 1: (7 women & 7 men) • Group 2 : (12 men) • Group 3: (12 women) Case studies representatives and local people

Table 2: Detailed summary of FGDs held during fieldwork

The various FGDs generated a lot of interest among the participants. I used an audio recorder and sometimes a video camera to capture the words and emotions of the participants. Of particular interest to NGWP members was the FGD I held to discuss local level politics and conflict that occurred in the NGWP because they had never previously been given a platform to discuss openly what had transpired in terms of conflict. It was an emotionally charged FGD with the participants using clearly loaded facial expressions and gestures to show their anger and frustration at what happened in the NGWP due to conflict. I was able to capture these emotions by use of the video camera. Capturing these emotions helped later when I revisited these audio and visual tapes during data analysis and thesis writing.

6.8 Informal discussions

Throughout my fieldwork, informal discussions, which were part and parcel of participant observation, became valuable sources of information, especially when local people spoke freely about current activities and about sensitive issues like local level politics. As time passed, respondents were increasingly comfortable discussing conflict within the NGWP during informal discussions, something they avoided during FGDs or more formal in depth interviews. Informal discussions also kept me up to date with activities, meetings and events like funerals that were occurring in Mufiri. By virtue of me being a woman, all the women from the case families opened up through informal discussions about their household gender and power relations. This information proved valuable in my analysis of gender relations.

6.9 Video Recording and Photographs

As indicated earlier I used video recording and photographs as a means of recording images of social behaviour and activities and of the aspects of the landscape of the fieldwork sites. I thus used them as a methodological tool in much the way that Paterson *et al* (2003:8) suggested when they said that 'when participant observation is the main data collection method, it can be supplemented with video recording in order to generate additional data that can not readily be captured by participant observation alone'. The kinds of data to which they refer include non verbal communication like 'physical and human environments, conversations, periphery interactions, non-verbal cues, and both verbal and non-verbal interviewer behaviours' (Kartoglu 2006). I thus video recorded *vlei* meetings and activities, FGDs, village events and various interviews so that I could return to the recordings later to confirm observational evidence.

I also took still photographs to provide visual images of some of the sites, people and households. For example simply describing the *Ngwarati* technology would not have presented a clear picture of the technology. Photographs have enabled me to present a good visual representation of the technology. Photographs also proved useful for collecting data on household assets acquired by NGWP members through their participation in the project and in showing project activities that occurred during fieldwork.

Videos and photographs were also used as a means to stimulate discussion among local people. Video clips and various photos were shown to respondents and they were asked – both individually and in groups – to discuss or share their opinions about what the images revealed. Doing this generated much excitement and interest from almost everyone involved, including even the otherwise quietest respondents. According to Penn-Edwards (2004:268), when respondents view a recording of themselves it can lead to 'stimulated recall' which often generates useful additional data. As a researcher, my own viewing of the video recordings and photographs during the time I was in the field also helped me in identifying issues or views that needed further exploration. And I was also able to review the images whilst writing the thesis.

6.10 Documentary Research

During the fieldwork period I also took time to collect documents about issues relevant to my study and to provide background information from the Shurugwi AREX office. This included *Ngwarati* project background documents and farmers' records. The major limitation was that the documents pertaining to the detailed history and background to Mufiri ward were not available in Shurugwi, nor indeed was I able to locate them anywhere. I did, however, manage to collect some data from the AREX officer, especially data relating to the NGWP, its implementation and maps of the ward. I also made use of SDARMP publications on the wetland project.

7. Ethical Considerations

Ethical issues were considered throughout the duration of the study. Firstly, participants were informed about the purpose of the study and clarification was given where respondents had questions or did not understand. Many meetings were held with local leaders, project members and villagers to explain the project and its objectives and processes. I was also given a platform at three of the monthly farmers' meetings and two community gatherings to explain the project and our activities. I also 'ensured that participants consented to being part of the study and that they understood the research and agreed to participate' (ASA 2004:3). Verbal consent was sought from all the respondents. In line with ASA-UK (2006:3), the participants were verbally given information about the 'uses of data, possible benefits of the study'.

Such information was presented verbally to participants so that they understood what they were consenting to.

Participants' consent was also sought whenever we recorded videos or took photos. This was particularly important as creating visual images raises particular ethical concerns since visual images that appear in presentations, the final thesis and publications arising from one's work can be used to identify individuals even if their names have been hidden. Moreover, using visual images as a research tool raises further ethical concerns, so participants were fully informed how the images might be used before they were asked to agree to be video recorded or photographed

Informant consent was sought 'repeatedly rather than only once' to ensure that participants were still willing to continue participating in the study (ASA-SA 2004:3). I thus periodically renegotiated participants' consent as the study progressed. Those unwilling to continue participating were given the right to withdraw from the study or from an aspect of it, and all were reminded regularly that they had that right. All my respondents were willing to participate in the study till the end, although one man who was part of my informal wetland site sample died during the study. For children under the age of 18, consent was sought from their parents or guardians.

Although the ward and village names have been retained, pseudonyms have been used for all individuals, primarily to protect the interest of the participants. Given the particularities of the *Ngwarati* system, it has not been possible, however, to hide the names of the village, ward or district, or of senior local officials.

8. Conclusion

Ethnography and associated qualitative methods enabled me to collect data for the research questions that I had pertaining to the NGWP and gender relations. As already indicated, these data collection methods enabled me to unravel important aspects of the NGWP such as technology transfer and conflict that also strengthened the argument that I present in my thesis. The research methods I used became important tools in generating new and interesting data that I had not envisaged at the beginning of fieldwork. I learnt throughout fieldwork that being a participant observer

and engaging in informal discussions with respondents gave me access to rich data so that I could avoid just scratching the surface of the issues I was investigating.

Staying in the field for extended periods of time helped me to create rapport and I became 'as if' one of the local people. Indeed, from after about six months of fieldwork local people would easily approach me and make statements such as 'have you heard about the funeral of ... or about the forthcoming farmers' meeting...?'. It was also during the same time that local people no longer referred to me as Ms Mangoma but as *muzvari*, a local word for an unmarried daughter or woman member of the family. From that point on I knew that I had become almost one of them and part of the ward. People became comfortable discussing the issues I was researching such as conflict, perceived benefits of the NGWP, technology transfer and gender relations. The good rapport I developed with local people gave me acceptance in the ward and gave me access to data that included sensitive topics such as HIV and AIDS and conflict.

Using a variety of research methods also enabled me triangulate my data and to collect all the necessary data to support the argument I present in this thesis. In the next five chapters I present detailed ethnographic data that help me to show that, while the *Ngwarati* project itself collapsed, the development process it set in motion has not been a total failure, since it had some positive spin offs that are proving to be beneficial for some local people.

By the time I reached the final phases of my fieldwork I found myself unable to refute Barbour's (2008) claim that qualitative research is not for the faint hearted. Being in the field and working in the ways outlined above all required strength, being focused and the will to learn and participate in local activities in Mufiri. The result of this journey is what I present in the next chapters.

III: INITIAL STEPS IN THE IMPLEMENTATION OF THE *NEW GATO* WETLAND PROJECT

> Wetlands are critical natural resources in developing countries where they perform a range of environmental functions and provide numerous socio-economic benefits to local communities and wider population (Dixon & Wood 2003:117)

1. Introduction

The implementation of the *New Gato* Wetland Project (NGWP) epitomized the numerous development initiatives that have been introduced in Zimbabwe's rural communal areas in an effort to improve rural livelihoods. Many scholars have shown how colonialism resulted in the underdevelopment and impoverishment of rural areas and how two different agricultural systems (sometimes associated with a dual economic system) evolved over the years in colonial Zimbabwe (Arrighi 1973; Moyana 1984; Moyo 1995; Rukuni et al 2006). Farming was thus divided into a commercially oriented system of farming for white settlers and subsistence agriculture based on so-called traditional methods for local black people (Auret 1990:69). Local people in Mufiri practised subsistence based agriculture.

The colonization of what subsequently became Zimbabwe, and successive legislation such as the Land Apportionment Act (1930), the Land Husbandry Act (1951) and the Land Tenure Act (1969) ensured a division of land along racial lines (Moyana 1984; Rukuni et al 2006; Auret 1990; Gaidzanwa 1999; Moyo 2000). According to Moyana (1984:14), the Land Apportionment Act resulted in 'land segregation and the creation of reserves'. The latter was reserved for various 'tribal populations groups' and known as Tribal Trust Lands. As mentioned in Chapter II, after independence, Tribal Trust Lands became known as Communal Areas. Mufiri Ward is one of Zimbabwe's 173 communal areas located in 55 of the country's district council areas. '[T]hese Communal Areas occupy 42 percent of Zimbabwe's land area, with over 85 percent of them located in Natural Regions III, IV and V' which have low rainfall' (Moyo 1995:129). They are characterized by subsistence farming which provides food and income through the sale of surplus crops and is the main way that local people make a living. In his analysis of wage labour in what was then Southern Rhodesia, Arrighi

(1973) looked at subsistence farming and how local people practised different kinds of farming. He showed that, by 1897, a few years after colonial settlement, local people were growing various crops including traditional 'grain' crops; and that by 1905 some were involved in growing vegetables, potatoes, wheat, groundnuts and tobacco too (Arrighi 1973:185).

By 1902, local so-called subsistence farmers were also providing the bulk of supplies purchased both by local people and white settlers (Arrighi 1973). As Arrighi (1973) also shows, these so-called subsistence farmers, by then turned peasant producers, were soon marginalised by colonial policies and the rise of settler capitalist agriculture. He shows further how colonial policies that were used to create labour supplies for white settler enterprises, reduced available labour for such people's own farming. This is confirmed by Moyana (1984) who, in his work on the political economy of land in Zimbabwe, focused on the effects of the Land Apportionment Act on local black people during colonial times. Moyo (1995:132) also points out how rural areas where black people lived were used as a source of cheap labour to support the settlers' agricultural, mining and industrial activities. By comparison with other economic sub-sectors, these rural areas were not developed for economic growth, but rather maintained as labour reserves providing cheap wage labour. The condition of local farmers in communal areas, as quoted by Arrighi for the 1930s, was described by a colonial official as follows:

> Already the first signs of the possible deterioration of the land in native areas from cumulative evils in the shape of soil erosion, the drying up of springs, the extirpation of valuable pasture grasses through overstocking, and some of our more congested native reserves and it is plain that we must take more positive control, if we are to see an increase, and not a reduction in the life-supporting capacity of our native areas (Report of the Chief Native Commissioner for the year 1932 quoted in Arrighi 1973:207)

Some writers such as Grierson et al (1993) agree that colonial policies restricted industrial and commercial development in communal areas, and did that through a variety of regulations. According to Moyo (1995:131) the communal areas were characterized by 'economic marginalization, densification and environmental degradation which included land degradation, deforestation, siltation, veld overgrazing, stream bank degradation and general loss of biodiversity'. Various other scholars have also highlighted the problems of underdevelopment that characterized

rural areas in Zimbabwe during the colonial era and how these continued into the era of independence (Moyana 1984; Rukuni et al 2006).

At the country's independence in 1980, the new government introduced a number of policies that, according to Moyo (1995:132), were 'aimed at redressing the economic imbalances that affected communal areas'. Some such interventions included the provision of inputs, expansion of extension support and services, introduction of new farming equipment, introduction of marketing depots, introduction of irrigation systems and infrastructure, and various other development projects (Rukuni et al 2006).

Given the colonially created economic marginalization and environmental degradation in and of communal areas, wetlands had tended to play a critical role in rural areas, especially in low rainfall areas such as those located in Natural Region IV within which Mufiri is situated. In the pre-colonial era, wetlands were an insurance against drought (Whitlow 1983). During the colonial era, however, wetlands were designated as prohibited areas to farm because of the perceived potential magnitude of environmental degradation. After independence, new legislation made formal use of such wetlands permissible, and projects such as the NGWP came to be seen as potentially important tools for fighting poverty and minimizing the effects of erratic and low rainfall in areas with wetlands, such as Mufiri.

The importance of agricultural technology such as the NGWP's *Ngwarati* system was shown by Kipkemboi *et al* (2007) who argued that, after the 1980s, most Sub Saharan African farmers were facing major challenges in their farming activities including environmental stresses such as poor soils, erratic rainfall and lack of technology to improve their yields. Communal areas in Zimbabwe were (and are) no exception as they suffered increasingly from population pressure and lack of inputs to improve soil quality (Auret 1990).

Erratic rainfall, inflation and the current socio–economic situation in Zimbabwe all affect subsistence farmers in the communal areas. Faced with such challenges in farming, innovations from agricultural science and technology have provided some of the alternative options for local farmers.

Picture 7: Unfertile sandy soils that characterize Mufiri ward's dryland farms

The application of agricultural technology in farming is viewed by many scholars and development organizations as providing a means to boost productivity or 'yield gain, improve use of land and the efficient use of labour' (Inter Academy Council Report 2004:76). Such hypotheses and assumptions have seen the birth and development of many technologies ranging from the introduction of hybrid seeds, fertilizers, irrigation systems and agricultural implements over the past three decades (Rukuni et al 2006).

Scientific and technological innovations in agriculture in Zimbabwe in particular have also resulted in the development of the *Ngwarati* wetland tillage system, with its broad ridges and furrows. Yet, despite its introduction and implementation in eight areas of the country, questions remain about how far development strategies such as the *Ngwarati* system actually improve local lives through food provision and income generation; and how, and whether, they can be sustainably used by local farmers. The NGWP represents use of post-colonial science and technology for 'increasing agricultural productivity, profitability and sustainability, thereby contributing to improved food security for all' (Inter Academy Council Report 2004: xviii). Yet its effectiveness and sustainability is questionable.

In this chapter, I show the processes that were involved in the implementation of the NGWP and how the ward residents were not fully involved in planning the project, that despite the fact that the project reports suggest that it actively embraced community participation in implementing the project. I also discuss membership and

the authority structures in the NGWP and show the power dynamics that were involved in the operation of the project.

2. Utilisation of a wetland

According to the local AREX officer and the SDARMP (2000) Report, Shurugwi district is 'endowed with numerous unutilized wetlands which by their topographical positions are very fertile owing to the accumulation of biomass matter brought down stream by surface runoff water' (SDARMP 2000:26). During my initial transect walk in Mufiri I noticed that there were indeed numerous wetlands scattered across the ward. Such wetlands, like most wetland areas across Africa, are said to hold significant soil moisture over long periods, thus making them attractive for agricultural purposes (Dixon & Wood 2003; Woodhouse et al 2000; Kimmage & Adams 1992). It was for that reason that Mufiri was selected for implementation of one of the DRSS's eight *Ngwarati* projects.

The NGWP was implemented by a multi-disciplinary team of professionals that included agricultural researchers, agricultural extension officers, environmental experts and local farmers. The team was responsible for spearheading the NGWP through developing 'low–gradient contour ridges and furrows' as part of participatory adaptive trials that aimed to 'refine and demonstrate sustainable utilization of wetlands for community food security' (SDARMP 2002:26).

The NGWP covers a total of 9.5 hectares of which less than one hectare was used for farming before the project, primarily because the Natural Resources Act of 1941 had placed environmental restrictions on the use of wetlands or *matoro* for farming (Mandondo 2000, Whitlow 1983). In Mufiri's *Chiriya* village, four households were affected as the project encroached into parts of their fields on the northern part of the wetland, although all four subsequently became members of the project. For three of these households, the affected areas were less than 0.4 hectare per household and for one household it was 0.5 hectare. The latter household sought compensation for the land and the headman allocated its members another piece of land outside the project area. However, the other three affected households said that they were happy about the project and saw it as their contribution to the development process and hence, in

the words of one project member, did not 'raise a lot of noise over their land by seeking compensation'.

The NGWP initiative was aimed at increasing local people's capacity to have adequate food for their households and surplus to sell to other local people who were not members of the NGWP. The project also aimed to teach NGWP members wetland farming skills and associated water harvesting techniques in order to make the project sustainable in the long term. The SDARMP Report[38] (2002:3) says the project was aimed 'at improving food security and income generation' among local people.

Although the SDARMP report speaks of 'food security' and the 'community', these are words that need unpacking and I will not use them loosely as in the report. Various definitions of food security have been given by scholars and organizations (Sen 1981; FAO 1982; Bigman 1985; World Bank 1986; Osmani 1988; Maxwell 1989; Pottier 1999). According to Salih (1994:5) food security is best understood 'as access by all people at all times to enough food for an active, healthy life'. From this definition the focus is on access and availability of food precisely because, in some circumstances, food can be in good supply but still not accessible to some or many people. In terms of such a notion of food security, success for the NGWP would have meant ensuring that people in Mufiri had reliable and regular access to food through crop production and hence that their food security would have been ensured – they would all have access at all times to sufficient food for an active healthy life.

The word 'community' is one that has been debated and its use critiqued widely – especially when used as if to suggest a bounded notion of community (Cooke & Kothari 2001; Mansuri & Rao 2003; Bologna 2008). According to Cooke and Kothari (2001:6) the notion of community is problematic in the sense that it implies that all who are part of it share a common purpose, which in turn implies a sense of 'internal homogeneity, coherence and cooperation, within a territorially defined area'. As shown by Bologna (2008) and Ferguson (1990), such a conceptualisation of a community is problematic for development interventions because it assumes that a target population is homogeneous and that its members share common goals. This can result in inappropriate development interventions based on planners' notions of a

[38] A report that was written 3 years after the implementation of SDARMP projects around the country. The NGWP is featured in the report as one of the very successful stories of drought prone areas interventions introduced by SDARMP.

coherent community which might not reflect reality. Throughout the thesis I refer to local people from Mufiri as Mufiri residents and not as a community, precisely because they did not constitute a homogeneous population with common interests and attitudes. During fieldwork I came soon to realise that Mufiri residents had diverse and sometimes competing views and goals. They most certainly did not constitute a homogenous group such as the word community implies.

Picture 8: New Gato Wetland Project site notice board

Despite well-known critiques about the assumptions embedded in an uncritical use of the term 'community', the NGWP planners outlined that the project would be an irrigation project 'based on sustainable and drought tolerant resource management *by and for the community*' (SDARMP Report 2002:3; italics added). According to the report, the project was guided by 'development' principles that centred on so-called community participation which meant that the project planners expected significant contributions to be made to, and ownership taken by, project members of all aspects of the development process.

Ownership is another buzz word in development circles, and one that also requires both explanation and critique. It is commonly used to suggest that local people, commonly a so-called community, should be so drawn into a project so that eventually they will see it as their own and will be able to sustain it after donors (in

this instance IFAD and AuSAID)[39] have left after implementation. As I show later in this chapter the members of the NGWP battled with coming to terms with the planners' and donors' notion of community participation and ownership, precisely because of the extent of external funding and expertise and continuing local government involvement in the project.

The SDARMP report also emphasises that 'both community members and project facilitators used Participatory Rural Appraisals (PRA) to identify potential community projects … [so that] in the process, problems and needs were assessed' (SDARMP Report 2002:4). According to Chambers (1994:953), PRA is 'a family of approaches and methods to enable rural people to share, enhance and analyze their knowledge of life and conditions, to plan and to act'.

Although the NGWP embraced notions of community participation, data I gathered about the project show that the project was in fact run in a 'top-down' fashion. As Rahnema (1992:118) comments, in terms of PRA 'the political function of participation is to provide development with a new source of legitimation, assigning to it the task of empowering the voiceless and the powerless'. But, as she goes on to point out, that more explicit goal of really ensuring popular decision making and participation is infrequently if ever achieved.

The data I gathered from various in-depth interviews and FGDs that sought to acquire members' accounts of how the project had been introduced and implemented in Mufiri show that a meeting was convened by a range of personnel from the Shurugwi District AREX department, local district government officials, the SDARMP representative from the Ministry of Agriculture and Rural Development, researchers from the DRSS[40] and the Chiredzi Research Centre, two IFAD representatives, one representative of AuSAID , the local AREX officer, Chief Banga, the councillor and local Mufiri leadership. The agenda for the meeting held at the local community hall indicated that it was convened to discuss the proposed project and to see whether local people, as represented by their formally recognised leaders, would welcome it. According to the AREX officer the local leadership was 'keen to have the project to be implemented in Mufiri' although local people had not been involved in its design

[39] Donors that funded the NGWP.
[40] The delegation was led by Dr Mharapara, the brains behind the *Ngwarati* technology and the rice varieties that were used in the project.

and planning. The AREX officer explained that the project proposal had been presented to them only at the last stage when implementation was sought. A local leader I interviewed, and who had attended the initial meeting, reported that 'we were happy to hear about the project and we were glad that development had come to Mufiri as last'.

Acceptance of the project by the chief and local leaders in Mufiri marked the beginning of the *Ngwarati* wetland project in 1997, and, according to the SDARMP report (2002: 27), the project soon became a 'beacon of agricultural development in Shurugwi district'. After the first project meeting, the local leadership and the AREX officer held a meeting with local farmers to inform them about the proposed project and ostensibly to obtain their approval for the already-planned and effectively accepted project. Thereafter, in 1998, it was implemented in Mufiri. Local farmers, however, were not involved in the conceptualisation and planning of the project. The planning of the project was done externally and local farmers were brought on board only for its implementation.

Reiterating sentiments expressed by Rahnema (1992), Cooke and Khotari (2001:5) have indicated that the aim of participatory development 'is to make people central to development by encouraging beneficiary involvement in interventions that affect them and over which they previously had limited control'. Yet in this case, and despite the donor's rhetorical adherence to the principles of participatory development, the NGWP did not involve the local people at all in the planning and early stages of the intervention. Indeed, the project had already been planned as an SDARMP project with funding from IFAD and AuSAID before local people, including local leaders, were even aware of its existence. Local people did not therefore participate at all in the planning stages of the project; they were involved only in its implementation, and then primarily through simply accepting the project leaders' proposals and through agreeing to participate. This is a weakness in many development projects, highlighted by post development critics and indeed by various other scholars who have written about development projects (Mosse 1994; 2001, Cooke and Khothari 2001; Cleaver 2001; Sillitoe *et al* 2002; Pottier et al 2003).

Participatory approaches arose as a result of a critique of the top-down approaches that had prevailed in many development projects around the globe and had failed to

deliver their intended outcomes. Yet evidence from various supposedly participatory development projects around the globe, and also from the NGWP, show that 'participatory planning may more accurately be viewed as the acquisition and manipulation of a new 'planning knowledge' rather than the incorporation of people's knowledge' by project planners; and that 'programme decisions take place with little reference to locally produced knowledge at all' (Mosse 2001:23). For most critical scholars today, PRA has thus come to be seen simply as a means to legitimize decisions that have already been made by development planners, allegedly on behalf of local people whom they consult but do not negotiate with. Indeed, a number of critiques have shown the shortfalls of participatory approaches and the extent to which their being based on unequal power relations results in their never being able fully to incorporate local knowledge, needs and priorities (Nelson and Wright 1995; Mosse 2001; Cleaver 2001; Francis 2001; Pottier et al 2003). As Rahnema (1992:122) concluded, 'participation was the slogan which gave the development discourse a new lease of life', but without introducing much real change in the manner of project implementation.

What I learned about the NGWP revealed flaws with PRA approaches which validate claims made against this approach by the various scholars I have quoted above. In the case of the NGWP, project members had no say in the planning nor indeed in the decision to implement the project – a say they should have had, had the notion of 'putting people first' and adopting a real participatory approach (Cernea 1991) been applied rather than just spoken about or mentioned, rhetorically, in project planning documents. Lack of full participation and of involvement of local people in all stages of a development project can have negative consequences on the impact and sustainability of the project (Middleton et al 2001), and I show later in this chapter how that occurred in this case.

3. NGWP members' perception of the beginning of the NGWP

In 2006, once I was in the field, I interviewed 15 of the 28 persons who were still formally members[41] of the NGWP about their perceptions about the project's implementation. The project members spoke about the beginning of the project with much excitement and pride. According to the secretary of the project committee,

[41] I discuss what it meant to be a project member in the next section.

> The idea of the wetland was first presented at the farming area meeting[42] by the AREX officer. She outlined in the meeting that it was a SDARMP project and many people were being invited to join the project. … After this, a second meeting was held at New Gato primary school. All those farmers who were interested attended this meeting… A list of interested farmers was compiled. The pegging of the site was also discussed. After this the project started.

During a FGD I convened, many among those 28 project members present expressed excitement about the project's founding moments and asked that the best and most eloquent speakers present should narrate the beginnings of the project for me – also, it seemed, for themselves. As the FGD progressed, I observed people nodding in agreement, and smiling, interjecting occasionally if any speaker left out what they regarded as important information. The selected speakers spoke mainly about how they worked together in clearing the wetland area, in constructing ridges and furrows and in planting and harvesting their first crops. Each person was given an opportunity to speak and they did so with much pride. An ethnographic description of what the members said is presented in detail in Chapter IV.

During the same FGD, the members there concurred that Mufiri experiences low and erratic rainfall and that being able to achieve a level of food security was a problem for most ward residents. They said the SDARMP intervention was seen by many farmers as a necessary and good idea since few people in Mufiri had access to fertile wetlands. Local people also welcomed the project's non-discriminatory policy; any farmer from Mufiri could join the project, women included. According to one member of the NGWP, one reason the project had been welcomed by many farmers in Mufiri was that 'It did not segregate between the poor and the rich farmers… those who had cattle and inputs and those who did not; everyone despite one's economic status was welcome to join the project'. These sentiments were echoed and repeated in almost all the interviews and discussions that focused on experiences around the beginnings of the project.

From my initial in depth interviews, informal discussions and FGDs, I soon realised that members of the NGWP and some residents of Mufiri who were not members of the project people referred to the NGWP as *madhunduru* meaning 'the ridges' – referring to the broad ridges that characterise the NGWP's *Ngwarati* layout. During fieldwork my discussions with various respondents, reference was often made to the

[42] Area Farming meeting was the monthly meeting held by the Area Farmers Association and it involved local farmers, AREX Officer, government and NGO personnel working in the area.

NGWP as *mandhunduru,* and indeed the word became a nickname for at least one boy born around the time the project was first implemented.

Picture 9: Madhunduru (ridges) - nickname of a boy born the year the NGWP was implemented.

From my analysis of all the data collected, two distinct phases of the NGWP stand out: (1) the initial SDARMP-overseen donor-funded phase of implementation which included the top-down consultation described above and then followed by construction of the broad ridges and broad furrows, activities such as working on those ridges and furrows, harvesting crops, meetings and decision making processes in relation to the NGWP; and (2) a period of decline when, with a prevailing drought and an end to donor funding, a situation of low productivity, internal conflict and decline in membership occurred.

Having recognised these two apparently distinct phases has helped me shape my analysis and presentation of my findings in my thesis. As will be shown in Chapter IV, the NGWP apparently had a few successful years followed by a period of disintegration.

4. NGWP Membership, Authority Structures and Control

4.1 Membership

In 1998 when the project started, it had a membership of 78 farmer members of whom 58 were women and 20 men. An important aspect of the NGWP was that women were allowed to join the project as full members in their individual capacities as village adults. The inclusion of women in the NGWP was seen as a good development for those women who were able to become full members of the project. According to the AREX officer, the NGWP was the first 'combined project', that is, one that included both men and women. Before this, women participated in clubs exclusive to their gender whilst most development projects allowed only men to become primary members or participants. The AREX officer noted that she had been involved with the recruitment of members and reported that, unlike in previous projects, women did not need their spouses or other male relatives to join on their behalf; they were able to join in their own right. This, she and various others said, was a major breakthrough for local women who had not been involved as full members in the few agricultural projects that had been implemented previously in Mufiri.

In previous projects, women who had participated had been able to do so only as proxies of their husbands or fathers. Before the New Gato wetland project, other projects – for men – were a grazing scheme project, and various Ministry of Agriculture and Rural Development public works projects involving men needed for building roads and boreholes. Additional projects were an AREX land use planning and a Master Farmer programme in which farmers were trained individually, and not as part of a project. The inclusion of women in the NGWP is discussed in Chapter VIII which focuses on gender relations in the NGWP and the outcome of those after its collapse.

According to the AREX officer, membership of the NGWP required only that one be a local farmer in Mufiri. There was no other strict eligibility criterion that was used for membership although it was on first come first serve basis. The AREX officer reported that the project had initially planned to include only 60 members but that, after an increase in registration, a further 18 members were recruited. Membership was free with no fee being required for farmers initially to join the project although, by 1999, an affiliation fee had been introduced and was required from each member.

The affiliation fee was introduced by the NGWP committee and was meant to enable the group to open a bank account and to have money to cater for project related expenses such as inputs, farming equipment and the hiring of tractors. The fee was the equivalent of US$3 per year. One member reported that:

> Membership in the project included poor farmers like myself who had no cattle and were struggling … many of us who joined were not rich but from poor households … some who joined had cattle … The members were a mixture of those who had money and those who did not. The project did not discriminate and that made us happy.

The table below shows the membership profile of the NGWP over 10 years (1998 to 2007) – from its start to the time that I was in the village doing fieldwork.

Years	**Membership**	**Management Concept**
1998 -1999	78 (58 women & 20 men)	Cooperative[43]
2000 – 2002	78 (59 women & 19 men)[44]	cooperative
2003 -2004	38 (27 women & 11 men)	Small groups
2005 – 2006	28 (19 women & 9 men)	Return to cooperative
2007	20 (12 women & 8 men)	Cooperative

Table 3 Membership profile of NGWP from 1998 –2007

From the start, the project was and remained an 'exclusive club' with the initially signed up members refusing to recruit new members, even to replace those who had died or resigned. Their justification was that they had done much work in clearing the wetland and that there was 'no price for their labour contribution'. They argued that allowing new members to join would mean giving them the benefits of the earlier members' prior labour without compensation to them. As one member commented:

> No we cannot! A new member? To just come and join us now? What about the initial labour? No amount of membership fee can ever be paid which can measure up to the hard labour we put in … It is not worth it, so we would rather not recruit new members; they can stay with [keep] their membership fees.

[43] A **cooperative** is defined by the International Co-operative Alliance's Statement on the Co-operative Identity as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. An agricultural cooperative such as the NGWP is a cooperative where by farmers pool their resources in certain areas of activity. In the case of the NGWP, external funding and expertise were instrumental in establishing the cooperative. In Shona cooperatives are known as *mushandirapamwe* http://en.wikipedia.org/wiki/Cooperative#Agricultural_cooperative (Accessed 1 March 2010).

[44] One male member passed away and was replaced by his wife. The wife later dropped from the project.

Such an attitude contributed markedly to a decline in membership over the years as no new members could be recruited. At the beginning of my fieldwork the project had a total of 28 remaining members and, by the time I left the field, the number had fallen further to 20. The other eight members had by then stopped attending wetland activities because of the apparent decline in production at the NGWP.

The above quote also reveals that a politics of exclusion was one reason that led to a decline in membership. Various other reasons include:

- *Conflict*: 10 former wetland members and the 28 members I interviewed in 2006 gave local level politics and conflict as the major reasons for the decline in membership. (I present more ethnographic details of what people said, and give examples of conflict in Chapter V.)
- *Death of members*: The AREX Officer's records showed that six of the original set of 78 members had died, with speculation that four had suffered from HIV and AIDS, and two of old age. HIV and AIDS had a further negative impact on the project's operations and activities because deaths of others in the village, especially kin, meant that members had to abandon work either to attend funerals or to care for their sick relatives. I recorded 48 funerals[45] having occurred during the 16 months I stayed in Mufiri. This figure included three children and four teenagers.[46]
- *Erratic rainfall and drought*: According to three members I interviewed, poor harvests in the wetland project from 2003 to 2007 contributed to at least some members quitting and joining other projects that seemed to be more productive. Those other projects included the University of Zimbabwe's (UZ) maize fertiliser trials and the CARE treadle pumps irrigation project. The UZ project aimed at helping farmers with improving their yields by applying various fertilisers. The project supplied participating farmers with hybrid seeds and fertilisers for the trials. Participating households thus benefited from the inputs and technical expertise they received as part of the trials. The CARE project supplied farmers

[45] Mufiri ward has 34 villages and I made every effort to record all the funerals I attended or heard about. I worked mostly in 15 villages. I might not have recorded all deaths because of the large coverage area.

[46] These four teenagers died tragically when they got drunk and planned to hijack a haulage truck coming from South Africa. One of the guardians who happened to be an NGWP member said 5 teenagers had stood in the middle of the road around 12 midnight with intention of stopping a haulage truck but unfortunately the driver did not stop and ran over four of them. Three died on the spot and one on the way to hospital. One of the deceased teenagers had participated in one of the FGDs we held at the NGWP. He had attended NGWP activities on behalf of his uncle.

that had access to water reservoirs especially in the informal wetlands with water pumps so as to help with irrigating their crops and vegetable gardens. The aim of the project was to enable the participating farmers to improve production, with the hope of creating a situation of food security for the participating households.

The members who left the project were not compensated in any way. Their membership in the NGWP simply remained vacant. According to the remaining members, the former members could rejoin the project whenever they wished and one former member did return in 2007, after having been away for three years. She said that she had left the project because of conflict and the decline in productivity. After seeing the 2005/6 efforts at resuscitating the project she decided to 'revive her old membership of the project'. Three former members I interviewed explained that they had left of their own accord because of social tension (rather than having been chased from the project); and they understood they could return whenever they wanted. According to these former members, they had simply decided to take a break when the project was struggling to give them the hoped-for benefits. The decline of the NGWP is discussed in detail in Chapter IV.

4.2 Authority Structures and Control

Various questions arise when one looks at authority and control in groups such as the NGWP. Such questions include who is positioned where in the hierarchy? Who decides and whose interests are served? Fogelson et al (1977:388) defines power as 'the ability of a person or social unit to influence the conduct and decision making of another through the control over energetic forms in the latter's environment'. Closely linked to the issues of power is authority which is defined by Aiken et al (1970:8) as 'consent legitimately given to groups or individuals to direct certain activities and to utilize certain resources to achieve purposes'

The hierarchical structures in the NGWP presented interesting issues in relation to power and authority. In my analysis of power in the NGWP, I shift from the early conceptions of power that linked it to domination and hegemony (Hindess 1995). In line with this view, Mwaipopo (2001:13) argues that conceptualising power in relation to domination and hegemony is 'analytically restrictive, since it fails to grasp the multiple ways in which power is actually deployed'. Sawicki (1991:25) also

argues that power is not fixed but circulates in an area which Foucalt termed ‘a social field of struggle’. In such an arena, ‘power is exercised on and by individuals over others as well as between themselves’ (Mwaipopo 2001:14). Power then is located in previously non political settings such as the NGWP and also located in individuals. Such a shift in our understanding of power leads to a recognition that ‘individuals in whatever relationships they may be, are constantly negotiating questions about power, authority and control of definitions of reality’ (Mwaipopo 2001:15). As I explore issues of power and authority in the NGWP, I focus on the exercise of power and authority by individuals who were responsible for the management of the project.

In the wetland project, the local authority structures comprised the AREX officer, the wetland committee and the workers’ committee. On paper, the three were not organised hierarchically; but in reality a hierarchy of authority within the structures existed. At the top of the NGWP hierarchy was the external authorities and donors followed at the local level by the AREX officer, followed by the project committee, then the workers’ committee and at the bottom the ordinary project members. The external authorities were not directly involved in the daily running of the project and so I will focus my discussion on the AREX officer, project committee and members who were heavily involved in the project. Below I present a diagram showing the authority structures in the NGWP.

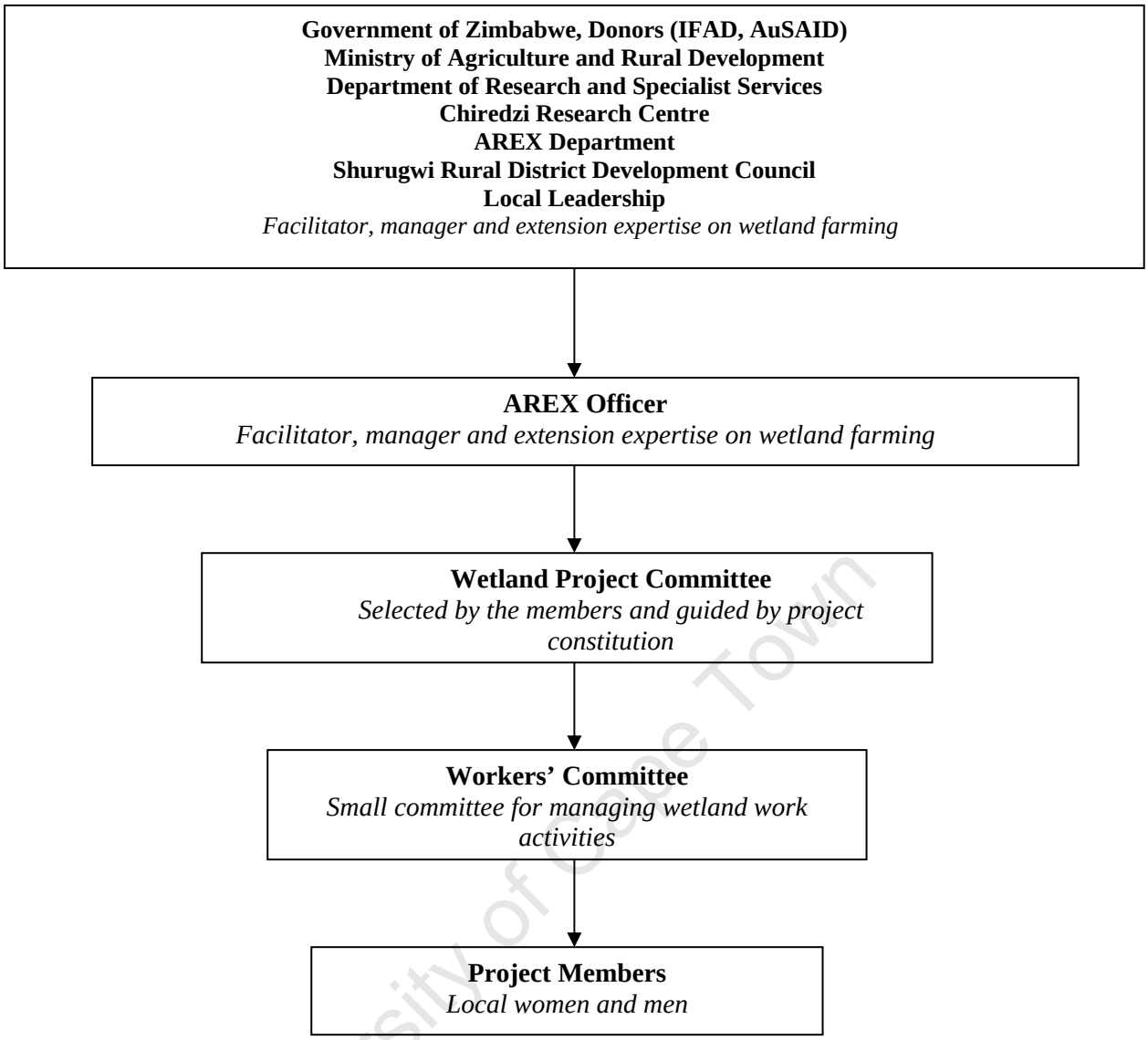


Diagram 1: Wetland hierarchy of authority structures

4.3 AREX officer: authority versus control

According to 11 project members I interviewed, the agricultural extension officer was a powerful figure in the wetland project especially during the initial five years. The officer had control over the committee and the project members. The officer's control, and her ability to exercise power locally, was based on her role as a facilitator during the implementation of the project, her educational status and her position as a state employed official. She had been instrumental, indeed crucial, in bringing the project to the ward and in its early successes. Indeed, she displayed what Fogelson et al (1977:389) called 'independent power' which they defined as 'power that consists of those capabilities that characterize a particular individual – his (sic) knowledge, skills, fortuitous and systematic abilities'. By virtue of her having this kind of independent power, the AREX officer was able to exercise power and control over

the operations and members of the wetland. Indeed, the SDARMP Project Report (2002) attributes the early success of the wetland project to the commitment of the extension officer and to her facilitation at grass roots level. From various local people's reports of their experiences, the extension officer had stood out from the very start as a committed and experienced officer who had a great passion for agriculture.

The AREX Officer was originally from Chirumhanzu. Her work as an extension officer had resulted in her settling in Mufiri with her husband and children. The AREX district office had provided her with a three bed-roomed house at the local Mufiri shopping centre. Her husband was a teacher at one of the local primary schools.

The AREX officer was amongst the first female agricultural trainees to qualify at one of independent Zimbabwe's agricultural training colleges. Her tireless efforts had reportedly been recognised in 1999/2000 by her being recognised as the Best AREX Worker of the Year, an award that is given annually to an AREX officer who has contributed significantly to improving farmers' crop yields through good extension advice, innovation and successfully implementing agricultural interventions. The winner is given a certificate and a cash award (SDARMP 2002:32). Her work on the wetland project contributed immensely to her receiving the national award, though it was also based on the hard work and the cooperation and dedication of project members whom she had mobilised and coordinated.

The fact that she had been recognised nationally in that way meant, however, that it had strengthened her authority amongst local people who were awed by her having received the award and looked up to her as a consequence. That in turn enabled her to wield substantial power over project members and over the operations of the wetland project. For example, one member reported that the AREX officer, during the first harvest of the NGWP, collected crop samples and gave visiting government officials maize from the project, but without having first consulted the project members. As that respondent explained, her lack of consultation had resulted in internal conflict in the NGWP, an issue I return to in Chapter V. I refer to the incident here simply to offer an example of the AREX officer's use of her power, and how it actually undermined her long-term authority.

As AREX officer, she played three major roles within the wetland project, each strengthening her authority – at least during the implementation phase and for a while thereafter. As a facilitator, she played the role of a mediator between the external and local people who were involved with the project. According to the AREX officer, her role was:

> To facilitate at grassroots level to make sure that local leadership understood and accepted the project…I also mobilised local farmers to join the project…When the project kicked off, I mainly helped in the planning of wetland activities and giving extension advice on what crops to grow, when to harvest and how to run the project smoothly

The AREX officer was thus a kind of cultural broker in that she represented the developers to local people and also represented the local people to the developers. Cultural brokering has been defined as 'bridging, linking or meditating between groups or persons of different cultural backgrounds to effect change' (Jeweski 1990: 1). The term cultural broker was coined by anthropologists in relation to individuals who act as middlemen, go betweens or negotiators between colonial government and people in the colonies.

The AREX officer thus acted as a broker and her role allowed her access to a range of information and people that no one else had. Being a broker strengthened her ability to exercise power within the project. For example, one member reported that the AREX officer had established and maintained networks with the Chiredzi Research Centre which provided rice and wheat seed to the project. It was through such links that project members accessed inputs for the project. Given such a scenario, they did not want to challenge her power and authority. They needed her external links with the various centres to access inputs for the project.

Secondly, her expertise as a trained agricultural extension officer meant that she had knowledge that gave her leverage over project members. During informal discussions, members of the NGWP testified that the AREX officer knew her field of expertise and her knowledge was evidenced when they planted crops in the wetland. According to one member 'that woman was good, she knew her stuff…she knew each crop, its planting date, pest control, times to harvest…her expertise was seen in the good harvest we experienced under her leadership'.

During my fieldwork, I had opportunity to observe her working with farmers in the UZ maize trials project. As she discussed and helped farmers with the trials, it was evident that she was knowledgeable and knew what she was doing and teaching the farmers. As commonly noted, knowledge is power. Her knowledge of wetland farming gave her leverage over NGWP members because they had to rely on her for expert guidance, especially when it came to planting of the *Mhara* rice type, a rice variety that was first introduced with the *Ngwarati* technology and which was thus foreign to local farmers. Since they had not planted it before, they had to rely on her expertise.

Lastly, her role as manager of the project meant that she had to manage the project on a daily and hands-on basis, especially during the implementation phase, and therefore she had intimate knowledge of most of its workings and the relationships between members. It was her role as manager, however, that subsequently became an area of concern among the members of the NGWP. According to one project member, the AREX officer had 'led them throughout the initial stages of the project…some of the members like myself felt that we did not have ownership of the project as the AREX officer dictated to us what to do and how to work'.

In informal discussions other members echoed the same sentiments although I observed and noted at several farming meetings that members were afraid to talk about her openly in such public contexts. Indeed, some members asked me not to divulge their personal concerns about the AREX officer to her or to mention them to other local residents. I understood the sensitivity of the matter as a product of her continuing to be their AREX officer and continuing to live in Mufiri and to maintain social networks with a variety of village people. Local people thus felt that what they said could easily reach her. As their AREX officer, she had access to knowledge and externally funded projects and so they did not want to cross her.

In these same informal discussions, some project members said they had felt as if they had had no say with regard to the operations of the NGWP, complaining in particular that the AREX officer had been imposing unwritten rules such as working hours. One member said that, 'One day during the harvest when she [the AREX officer] asked us to come and harvest the maize crop, we did not finish harvesting the crops as we were supposed to and she asked us to sleep in the wetland, which we did

to guard the harvested crop. We only left the wetland site after 6am the next day'. During fieldwork, I heard details of this particular incident repeated several times by members, especially when we were discussing conflict in relation to the NGWP and reasons why various members had left the project. One member narrated another story that was also frequently repeated.

> We went to work in the wetland and when the agreed time for us to knock off came, she asked us to continue working and went to the extent of going to fetch cooking utensils; and members cooked lunch and spent the whole day working without having gone to our homes…We had not planned to spend the whole day at the wetland or even prepared food for our children…Most of us were not amused but we had to follow her orders...some members tried to negotiate with her but she did not budge in her decision.

Various members complained that most decisions concerning the wetland and the activities required to keep the project running had been made by the AREX officer without their having been consulted. Some went so far as to say that they did not understand the role of the extension officer, asking whether she was supposed to offer extension services when needed or called upon, or more generally to manage the wetland project in a manner almost as if she were a commercial farm manager. Moreover, some complained she was herself registered as a wetland project member in her own right and thus reaped benefits which should have been those only of local residents who were project members.

The different roles of the AREX officer resulted in her wielding power in the NGWP. Moreover, her authority and control was reinforced by the project donors and planners who, in the words of a researcher from the Chiredzi Research Station, had 'left the project in the hands of the AREX officer'. While this had been accepted by members during the initial implementation phases of the project when they relied on the AREX officer to guide them as to how to manage the project and to establish appropriate management structures, many complained that she had failed to step back and allow them to take control once the project was well underway. One member commented that, 'At some stage it was like the project was not our own project…It felt like we were working for someone else's project. It frustrated us because the project was our own project as members'.

It is such sentiments that gave rise to conflict within the project – an issue discussed in greater detail in the Chapter V. The role of the AREX officer and the sentiments of the project members that I have described above reflect a very similar kind of

situation to those referred to by scholars such as Escobar (1995) and Crush (1995) who have argued that local people are not given much power in development projects and programmes and that power resides with the implementers and funders of development projects. Local people's lack of ability to exercise power in controlling development projects such as the NGWP compromises the notions of participation, putting people first, and ownership, notions advocated by those in development circles (Cernea 1985).

4.4 Project Committee

A seven-member committee comprising 5 males and 2 females managed the project when I started fieldwork at the NGWP. According to the committee members I interviewed, their election had entailed nominating people for the various positions and voting by a show of hands. The nominated person had to accept the nomination and people would then vote for them. The first committee was elected in 1998. The committee included a chairperson, vice chairperson, secretary, treasurer, vice treasurer and two committee members. See Table 4 below:

Position	Committee Profile	Gender & Education Profile
Chairperson	3 chairpersons • 1998 -2003 • 2003 -2004 • 2005 - 2007	Male (SE)[47] Female (TE)[48] Male (ZANU PF ward vice chairperson & District Representative) (SE)
Vice Chairperson	2 vice chairpersons • 1998 -2003 • 2003 - 2007	Female (Nominated to become NGWP chairperson and served from 2003 -2004) Male (ZANU PF committee member) (PE)[49]
Treasurer	2 Treasurers • 1998 – 2003 • 2003 - 2007	Male (PE) Male (ZANU PF ward chairperson) (PE)
Vice Treasurer	1 (2 candidates) • 1998 -2002 • 2003 - 2007	Male (ZANU PF ward chairperson) (PE Male (WADCO member) (SE)
Secretary	1 (same candidate) • 1998 - 2007	Female (local business woman & ZANU PF member) (SE)
Committee member	1 (same candidate) • 1998 - 2007	Female (farmer) (PE)
Committee member	1 (same candidate) • 1998 -2007	Male (ZANU PF leader, WADCO member) (PE)

Table 4: *NGWP committee profile from 1998 – 2007*

Since the beginning of the project, three different persons have occupied the chair of the committee. The first was a man and a master farmer, Mr. Matambo.[50] According to the AREX officer, he was a good farmer who had excelled in farming and had received numerous awards. When it was time to elect the chairperson for the NGWP, there was consensus among the members that he should be the chairperson. His wife, Mrs. Matambo, was a retired teacher who had worked at one of the local schools.[51] He died in 2003 after a short illness.

The second chairperson was a woman, Mrs. Zhou, also a master farmer. At the beginning of the project, she had been elected as the vice chairperson and, after the death of the first chairperson, she was nominated to take the chair. She resigned in

[47] SE represents Secondary Education.
[48] TE represents Tertiary Education
[49] PE represent Primary Education
[50] A master farmer is a farmer that has successfully undergone training on various farming techniques. Training was done over 2 to 3 years by the Department of Agriculture and Extension (AGRITEX). At the end of the training the farmers received certificates and master farmer badges. The master farmer program was open to all the local farmers.
[51] I discuss her household one of my case studies in Chapter VII.

2004 due to ill health.[52] The chairperson during my fieldwork, Mr. Chiko, was another master farmer. He was also the ZANU PF ward committee's vice chairperson and represented the ward in the ZANU PF district committee. He was a well-respected man in the ward and sat on the WADCO and VIDCO. He was also the only person in the whole ward who had benefited from the controversial national fast track land reform programme, having obtained a farm in Shurugwi. During the period of my fieldwork he spent extended periods of time at the farm. Informal gossip in the ward was that he had received the farm because of his political ties that gave him access to information and important political links. When I asked local people why they had not themselves gained access to such redistributed farmlands, they said they had not had adequate information about accessing these farms. That was despite, a few years previously; their having been asked to register their names for resettlement although, they complained, nothing had been heard since that time.

Despite the changes in the chairpersonship, the rest of the committee had remained relatively unchanged over the 10 years of its existence. Table 4 shows that education level, social status and positions in the local political structures, especially the ZANU PF ward committee, played an important role in being selected into the NGWP. For example, people who were master farmers have over the years held the chairperson position. According to the AREX officer, to be a master farmer one had to be able to read and write in order to understand some of the farming materials from AGRITEX. However, the bulk of training entailed practical lessons during which the local AREX officers would orally teach and show farmers various farming techniques such as fertiliser applications.

4.5 Workers' Committee

The second local NGWP committee, the workers' committee, was effectively just a 'one-man' committee whose duties mainly involved allocating work duties to the members and organizing meetings and wetland activities. During the period of my fieldwork the man occupying this role was the vice chairperson of the main project committee. According to that man, the workers' committee was really just a sub-committee of the project committee, one that he and another committee member had been nominated to be part of. However, the other member had quit the project in 2005

[52] I discuss her in detail in Chapter VIII on gender relations.

and had not been replaced. As indicated in Table 4, the vice chairperson of the project committee and sole member of the workers' committee also held a position in the local ZANU PF committee and was a WADCO member.

As indicated above, various committee members were influential local political leaders and the presence of these leaders in the committee meant the presence of a particular power dynamic within the project and the influence of local level politics. During fieldwork, I observed that members did not want to oppose those in the committee because four of the men in the project committee held positions on the local ZANU PF committee and local government structures. One member told me informally that

> One can not oppose these leaders or the committee members because they represent us …it's problematic. One individual sits in all the committees and even when we are at the project ...in your heart you know he wears another hat or hats for different gatherings and activities.

At one point, one of these men, Mr. Vafana, using his 'political hat', summoned me and I was taken to task about the criteria I had used for selecting the households I was working with. The problem, according to Mr. Vafana, was that he believed I had direct links to donors and that the households I was working with would eventually benefit when I eventually brought in the donors. These allegations were levelled against me despite my having, at that point, been in the field for several months, despite my repeatedly explaining my reasons for being there as a researcher, and despite my having worked in the NGWP with the man in question. Mr. Vafana was also present when I did my first presentation of the study to the ward leaders. I paid him a visit at his home and I kindly reminded him of my initial presentation and why I was in the village and he just said he needed clarification. I did this to clear the air and ensure that my fieldwork was not affected by such allegations. After this incident, I could understand why some members of the NGWP felt that some of the committee members exercised power using different hats and how this had affected the NGWP. I discuss in detail local level politics and its influence on the NGWP in Chapter V.

4.6 Project members: Silent voices

As indicated from the numbers presented earlier, most project members were women. Yet these women were not very vocal during the meetings of the NGWP. I call them 'silent voices' because although they were silent their 'voices' were speaking loud

and clear and in that silence decisions were made, like resigning from the project. They spoke through actions, such as staying away from some of the meetings, discussing informally among themselves and mobilising more vocal members to speak on their behalf. Gender relations in the NGWP are discussed in detail in Chapter VIII.

5. NGWP Constitution

The project constitution was formulated and agreed upon, ostensibly collaboratively, by members, the project planners and researchers at the beginning of the project in 1998. The NGWP committee received help from the AREX officer in coming up with the constitution. The proposed constitution was discussed by the members during 1998 and the final constitution was neatly written in a hard covered notebook and kept by the project chairperson. During fieldwork I had the opportunity to go through the notebook that was being kept by the then current chairperson. There I found that the constitution had been amended in 2005 to include fines for not attending wetland activities. That was because members were no longer consistent in their attendance at and participation in NGWP activities.

An in-depth interview with the chairperson provided insights into the constitution and how it was intended as a guiding instrument for the structure and operation of the project. The constitution outlined the objectives of the project as:

- To promote food security in Mufiri ward
- To ensure household food security
- To promote proper utilization and management of the wetland
- To promote marketing of crops and hence income generation

The constitution also addressed a number of further issues that are summarized in Appendix III.

From all the interviews and FGDs we carried out, it was clear that all wetland project members were aware of the project constitution and often referred to it during the various discussions we held in relation to the NGWP. In the initial years, we were told, the constitution had played an important role in shaping the operations and structure of the project. For example, members came to work in the wetland once a week because the constitution stipulated that each member was expected to come to

the wetland every Tuesday from 7am to 1pm. This was the time allocated for meetings and any planned wetland activities such as ploughing, planting, weeding or harvesting.

Committees were established according to the constitution, as were rules governing membership and work activities. A major weakness of the constitution, however, was its lack of clarity on the role of the AREX officer and on processes of monitoring and evaluating the project. Issues of control, reporting structures and communication channels were also inadequately addressed in the constitution. This weakness and its consequences were identified in an interview with one of the committee members:

> The constitution was our map….especially during the good years of the project. Everything we did was guided by our constitution…we knew when to meet, how much to pay every year, the duties of committee members and the activities we were supposed to do as a cooperative…the constitution did not adequately address the role of the officer and in the end it created problems.

By the time I conducted fieldwork, when the NGWP was in decline and collapsing, the constitution remained as a document in the background rather than as a binding and guiding force. The constitution was not mentioned during any of the NGWP meetings and activities I attended. For example, during the 16-month period of my fieldwork, no full committee meetings were held, a requirement stipulated in the constitution. The only aspect of the constitution still in place was the project register that was still being used to record which members attended meetings and farming activities in the NGWP. When I asked members about the constitution in a FGD, responses varied from:

> Yes we have a constitution that is supposed to guide us…but we are few now and we sometimes make decisions based on what we can do as a small group and not on the constitution…For example we do not enforce the yearly subscription because we understand that some members do not have the money.

Some, telling it as it is, said:

> Constitution for what?...tell me…when the project is on its knees…we are trying our best to resuscitate the project…and if we manage to bring the project to its former glory then we will revisit the constitution.

These responses show that in the later years of the NGWP the constitution remained a document in the background only and had effectively lost any real authority.

6. Conclusion

This chapter has shown how the NGWP was implemented in Mufiri and the various structures involved in the daily operations of the project. Although the project planners reported that there was community participation in the implementation of the project, the data presented in this chapter show that there was minimum consultation with Mufiri residents: none in the design phases and only limited even in the implementation phases when, in many respects, it was introduced almost as if residents would be its workers. The residents were not involved in the conceptualisation and planning of the project and it was implemented 'top down'. The authority structures discussed in this chapter show the various power dynamics that operated in the project and, as I will show in Chapter V, these different power levels resulted in conflict and dissatisfaction among members of the NGWP – producing a social dynamic that helped to bring about the project's demise.

IV: THE NGWP'S PERCEIVED SUCCESSES AND ITS DECLINE

> The complete rejection of modernity and development ignores the numerous positive aspects undoubtedly closely related to them. (Corbridge 1998:145)

1. Introduction

Having shown in Chapter III how the NGWP was implemented in Mufiri, in this chapter I show how the project positively contributed to local people's lives in terms of food security, income generation and skills acquisition. I focus on the members' perceived benefits from the project since I could not measure the 'before and after' social and economic indicators due to my absence during the 'before' period. I explore in detail the processes, events and perceptions of members during the apparently successful years of the NGWP.

Despite its apparently early successful years, the NGWP began to experience a steady decline in terms of productivity and membership from 2004. The disintegration of the NGWP was evident during the time I conducted fieldwork. I trace the indicators and explore the various factors that led to the collapse of the once successful wetland project. I do that in light of the post development critiques, as discussed in Chapter I, and in order to compare what occurred around the NGWP with the kinds of assertions made and conclusions reached by various scholars from the post-development school of thought.

2. Apparent early successes

The first five years of the NGWP were perceived by project members and local people as having been a success story of development. I use various case studies, harvest records and people's stories to illustrate the apparently successful years of the NGWP. For example a member of the project committee reported that

> The project definitely put us as Mufiri ward on the map of Zimbabwe…Before the project, we were not even recognised and we would hear about development in others villages and wards…Our project made us proud because it was a well planned project that yielded good harvests that we could all see.

From the reports respondents gave during interviews and FGDs, and those that I found in some project-related documents in the care of the AREX officer, the initial years were marked by excitement, determination and hard work. One male project member spoke of how they worked together as a group and followed closely the advice of the AREX officer and the team of experts who had come to implement the project. As Rukuni (2005) suggests, new technologies are a source of excitement, fear and anxiety as people wait patiently to see how the new technology will help them or if it will be implemented successfully. In the NGWP case, project members reported that there was a prevailing sense of eagerness as well as curiosity about whether the project would work. As one woman member commented,

> My daughter, we were very excited about the project. We would just come to the project site even if we had no planned activities and just observe the wetland. I came several times to see the construction of the ridges and furrows…would go to the site several times to observe the crops that we had planted…it was a beautiful sight. I know I am not the only one who paid private visits to the wetland site (laughing)…I met some members as well just coming to observe all the activities and crops we had planted.

When I interviewed them about their memories about the beginning of the project, members and former members of the NGWP reiterated these sentiments. According to the AREX officer, in the midst of all the excitement there was also a sense of fear and carefulness as they were trying the technology on a 'wetland', the use of which for agricultural purposes had previously been prohibited by law. The AREX officer, project committee and two researchers from Chiredzi Research Station who had been seconded to the project for 6 months together carefully planned all the activities in the initial stages of the project. One of the Chiredzi-based researchers reported that their team had brought their tents and equipment and they had camped at the project site for six months and were involved in clearing the wetland, constructing the ridges and furrows and planting the first rice and maize crops. The AREX officer and project members stayed at their respective homes. Work roles were allocated to the project members through the workers' committee and sometimes the AREX officer and the Chiredzi researchers allocated work as the need arose. According to the project chairperson, all the researchers, AREX officer and project members were involved in all kinds of intensive labour work at the project. He said:

> When it was time to work everyone, no matter whether it was the AREX officer or the officers from Chiredzi, were involved in the different activities that we were carrying out…It inspired us to see our 'teachers' of the project also engaged in the same tasks that they asked

> us to do such as clearing the wetland, constructing the ridges and furrows and planting our first crops.

According to the project committee's vice chairperson (also the chair of the workers' committee), the first major activity was to uproot trees in the wetland site. Project members, especially women, remembered the painful experiences of uprooting big trees. Initially they uprooted trees in small groups working on one tree at a time but, after the AREX officer and Chiredzi researchers realized that progress was too slow, each member was allocated a certain number of trees to uproot by himself or herself each day. The AREX officer and the researchers from Chiredzi did not have any trees allocated to them but helped in this task. This, according to one female member, was the beginning of 'painful and hard work and every person had to uproot trees that were allocated to them'. Another project committee member reported that,

> A lot of hard work went into clearing the wetland for agricultural purposes. After the trees had been uprooted, caterpillars were brought in to construct the ridges and furrows, followed by a tractor to plough …. As project members, we were asked to remove the remainders of tree roots and then we began hand planting rice in the furrows and maize on the ridges.

During these initial stages, requiring a lot of labour, members reportedly had to work in the wetland for more days a week than stipulated in the project constitution. However, once the crops had been planted, project members reportedly came to work only on the specified one or two days per week required by the constitution, depending on the activities that the AREX officer decided were necessary.

The 28 members I interviewed in 2006 agreed that hard work, adequate rainfall, good planning by the AREX officer and research officers, good coordination by the project committee and mutual cooperation by members resulted in big yields for the NGWP during the first and second harvests. One male project member summarised that period as follows:

> Everything from the beginning was well planned…Even the members were cooperating and we worked well as a group…we were all working towards one goal which was to see the project succeed…we interacted well and we respected our project committee and *vamurimisi vedu* [one who teaches us to farm – viz. the AREX officer].

The following wetland harvests were on record in the project documents for the NGWP's 6 hectares of worked arable land. The't' in the table indicates tonnes:

Crops	1999	2000	2001	2002	2003	2004	2005	2006
Maize	22t	24t	20.2 t	2.5t	1.8t	2.4t	1.7t	1.3t
Wheat	0	0	4.0	1.5t	0	0.2t	0	0
Rice	4.6t	5.2t	3.5t	0	0	0.35t	0	0
Total grain	26.5t	29.2	27.7t	4t	1.8t	2.95t	1.7t	1.3t
Groundnuts	0	0.24t	0	0	0	0	0	0
Beans	0	2.3t	0	0	0	0	0	0
Cowpeas	0	2.2t	3.1	0	0	0	0	0
Total legumes	0	4.74t	3.1t	0	0	0	0	0

Table 5: Wetland harvests from 1999 to 2006 (AREX Officer Records)

From the harvests outlined in the table, members were, during the early years, able to sell surpluses to the Grain Marketing Board (GMB) in addition to individual allocations that each member was given for their own consumption. For example, in 1999 they made $Z26 000 (US$722) from selling surplus crops and $Z22 812.40 (US$600) in 2000. The money was used to open a savings bank account for the project, with the chairperson, treasurer and the secretary as signatories. The project committee managed the account on behalf of the members. The savings were supposed to be used to buy seeds for the new farming seasons. According to the AREX officer and project chairperson, donors had funded all the initial costs of implementing the project. The members did not incur any financial costs but the members, as a group, were expected to continue financing the project through the sale of their crops. Their financial obligations entailed the costs of hiring tractors for ploughing, buying seeds and other inputs such as fertilisers, and paying for general expenses related to running the project.

One of the highlights of the apparently successful first couple of years was a national field day held at the project site in 1999 and attended by the then Minister, the Permanent Secretary and government officials from the Ministry of Agriculture and Rural Development, representatives from IFAD, AuSAID, SDARMP, DRSS, Chiredzi Research Station, and local government and traditional leadership (SDARMP 2002). According to one project member ‘all these people had gathered to see this great wonder’ in Mufiri ward. Others commented as below about the national

field day, an event they appeared to have seen as marking the wetland project's success:

> The place was filled with people [pauses and smiles]; one could not find even a place to put your foot. Many people whom I could not even count came to see, do you understand, I mean to see the work we had done in the wetland (Project member)
>
> As we approached the wetland that day, there were many people present, more than we had anticipated. When we were planning, we thought maybe a hundred people would come, but thousands of people came. It was like there was a political rally, but it was just people who had come to see the wetland. It was a busy day; the Minister of Agriculture was there including many important government officials (Wetland project committee member).
>
> It was a big ceremony, we slaughtered two big cows and the women cooked big pots of rice and *sadza* [maize meal porridge] and vegetables. What made us proud was that the rice and mealie meal cooked for the occasion was from crops we had grown from the wetland …We had set aside from our harvest an allocation of rice and maize to be used for the field day meals (Wetland project committee member).
>
> I was happy on this special occasion. The delegates and people that came were astonished and marvelled at the *Ngwarati* wetland project. They viewed the ridges and furrows which had good crops growing on them. The rice and maize crops were a marvel to look at. I think on that day the wetland was at it best. Before the big day, we had worked tirelessly in the wetland, weeding the crops, clearing paths in the wetland and maintaining the area around the wetland. For most of the people [visiting] it was their first time to see the *Ngwarati* technology. There were camera-men also, taking videos and photos. We hear that we came out on national television during news time (Wetland project member).

The apparent initial success of the project resulted in its members having a new source of food supplies and income generation for their households. Although the SDARMP report documents the initial success as having provided food security for the members, that was arguably not the case if one understands food security to entail uninterrupted access to sufficient food for a healthy life over an extended period. While the NGWP initially produced more food than had been available previously to its members, it did not meet the criteria for describing even its successes as providing food security. That is because, even at its most successful, the NGWP provided its members with only seasonal food supplies that, despite some being marketed, were, in the long run, insufficient to ensure either food security as defined by Pottier (1999)

and as shown in publications by FAO (1982) and the World Bank (1986) or indeed sufficient food plus seed for subsequent years.

The success of the wetland project in managing to increase food production in the ward shows that some direct material benefits did accrue to local people because of the then still donor-subsidised development intervention. It is therefore not a fair assessment to say that the development initiative and intervention was just an illusion, as has been said of other similar interventions – or that it was a complete failure. There are some success stories which must be acknowledged, such as the initial success of the NGWP. One, therefore, has to recognise that the quote from Corbridge (1998:145) used as an epigraph at the beginning of this chapter needs to be taken seriously in so far as writing as if to completely reject development tends to ignore the good stories of development. I would add that one needs also to recognise the benefits such as food availability, even in for only a short while, from agricultural projects like the NGWP.

The initially positive impact of the NGWP is also illustrated by the stories that wetland project members related about the first few years of the project's existence – stories that described the benefits that accrued to them – such as access to fertile wetlands, income generation and wetland farming knowledge acquisition. The four members who, with their household members, provided the basis for my four NGWP-member case studies concurred that they had all benefited from their participation in the wetland project, especially during the early years when the project was successful. They explained that their participation in the NGWP provided them with allocations of wetland-grown food for their households in the form of rice, maize, wheat, beans and other crops. According to the project constitution, after each harvest, the members were supposed to remove 10 percent of the harvest for selling and share 90 percent equally among themselves. The issue of the distribution of harvests, and of associated problems, is discussed in detail in Chapter V.

Table 6 shows the crops allocated to each member in the years 1999, 2000 and in 2006. Other distribution records were destroyed in what the AREX officer called 'a mysterious fire' at her house where they were kept at the time. The AREX officer reported that they did not share or take green maize from the project but sharing was done after harvesting the dry maize.

Crop	1999	2000	2006
Maize	253kg	276kg	40kg
Rice	53kg	60kg	0
Wheat	46.1kg	0	0
Groundnuts		2.7kg	
Beans		26.5kg	
Cow Peas		25.3kg	

Table 6: Harvested crops allocated per project member in 1999, 2000 and 2006.

According to members, the above NGWP harvest allocations had complemented their harvests from their dry land farms and provided them with food for more of the year than their dry-land farms alone did or could. According to the project chairperson,

> For a number of years rice was not being planted by many families in Mufiri ward but, with the introduction of the NGWP, each participating member had a variety of crops such as maize, rice, wheat, cowpeas, groundnuts and vegetables to take to their respective households. School children were no longer going to school on hungry stomachs.

The same sentiments were echoed by respondents from the four NGWP case study households. They all spoke about how they had benefited from participating in the project, especially during the first couple of years. Below I present data from those four to show the various benefits that had accrued to them as members of the wetland project, and to show also how those benefits were experienced at household level.

The AREX officer reported that, at the beginning of the project in 1998, planners, donors and facilitators were particularly interested in seeing whether and how the novel technology would be able to meet the project's objectives of ensuring household food security, income generation and attainment of skills and knowledge by farmers. By focusing on the case studies, I explore the effect of the NGWP at household level. Below, I look at the four case study households and the benefits their members said they had accrued from having had a household member participate as a member of the wetland project.

Case study 1: A big boost in food availability

In the early years of the project, the NGWP was able to generate sufficient food to suggest that there was movement towards food security. The food from the wetland helped households such as that of Mrs. Mutsa, who had previously relied on rain fed farming only. The case of Mrs. Mutsa, a married woman who had borne five children since her marriage in 1986, illustrates how the wetland project became an additional food source for some households.

Mrs. Mutsa had joined the wetland project when it began in 1998. Her husband was the councillor for Mufiri ward from 2003 to 2007 and spent a lot of time away from home attending local government meetings and functions both at district and provincial level. Mr. Mutsa was of the *shumba* (lion) totem[53] and was an agnate of the sub-chief. All four of their remaining children (a daughter had died in 1995) were in school during the time of fieldwork.

According to Mrs. Mutsa, she had welcomed the idea of becoming a member of the wetland project because, she pointed out, their household had had no access to any wetland garden or farm and they were looking for ways to increase their harvested crops. With her husband always travelling and her children in school, she commented, she had access to very limited labour to plant all of their fields. Some fields therefore lay fallow because she could not manage all the farming activities alone, or even when her children were out of school and able to assist her. According to Mrs. Mutsa:

> When we joined the wetland project with many other women we did not have a good picture of the extent of the work and also the benefits that would accrue… Initially, as we cleared the wetland, it was hard work and we were contemplating quitting the project and focussing on our dry land farms. I remember some of the villagers laughing at us and telling us that we would be disappointed if this project failed…However the project took some of us by surprise because of the bumper harvests that we received. In the initial years of the project, before the drought and other problems as members, I do not want to lie, we received large quantities of maize, rice and wheat for our families… It was more than what most members were harvesting

[53] Most black people in Zimbabwe identify each other by totems. A totem usually symbolises an animal or a body part such as a leg or heart. Each family has a totem. Relationships are formed on the basis of having the same totem even if they are not of the same blood line. Such relationships are held in high regard such that people of the same totem cannot marry each other because they are considered as relatives.

> on their dry land farms. For myself, for the first time I had rice and wheat as part of my yearly harvest, and enough maize for the family. I also gave some of the maize and rice to my in-laws and other relatives…It meant a wide variety of food for my family. I could bake bread and cook rice in addition to our usual *sadza* [maize meal porridge]. During those years we were healthy because there was no hunger amongst us. Even now, when the wetland is no longer producing as it used to, when we work we also receive some maize to supplement our dry land harvest.

Mrs. Mutsa's case shows that the wetland project contributed to generating a sense of food security for participating households. Table 7 shows the maize that accrued to the Mutsa household from the NGWP and their dry land farms.

Harvested Maize			
Year	**Tonnes (Wetland)**	**Tonnes (Dry land Farm)**	**Total**
1999	0.253	2.6	2.853
2000	0.276	2.3	2.576
2001	0.233	2.8	3.033
2006	0.04	3.35	3.39

Table 7: Wetland and dry land harvest for Mutsa household

The project contribution added to the wages earned by Mr. Mutsa and the combined sources provided steady and reliable food for two seasons. This gave the Mutsa household a short period where they had a sense of food security.

Case Study 2: An alternative to infertile lands for poor dry land farmers.

Picture 10 & 11: Rocky field belonging to the Sibanda household

The wetland project gave access to fertile and supplementary farm land for some poor member-households who had dry land farms located in rocky parts of Mufiri Ward where their fields were poor and infertile. An example to illustrate this benefit from the NGWP was the Sibanda household. Their dry land farm and homestead were located in the most infertile part of Mufiri ward in a rocky place near the mountains in Hwini village. Mr. and Mrs. Sibanda were subsistence farmers who depended solely on agriculture for their sustenance. They were of the *shoko* (monkey) totem and attended the Methodist church. They had had nine children but three had since died. They had two daughters-in-law, three sons-in-law and 13 grandchildren. Only two of their single children stayed with them. Originally from Mutare in the east of Zimbabwe, Mr. Sibanda's father had migrated to Shurugwi in the 1950s and settled first in Chief Nhema's area (some 80 km away from Mufiri) before relocating to Mufiri in 1965. He relocated to Mufiri after his brothers who had settled in Mufiri informed him that a new village had been established with farming land and new settlers were being given homesteads in the village.

Mrs. Sibanda was both a project member and a committee member in NGWP. The main reason she had joined was, she said, because their dry land was not producing an adequate harvest: they had experienced sometimes poor to at best mediocre harvests over the years. According to Mrs. Sibanda,

> After our marriage in 1966 we resettled in Mufiri and the piece of land we were allocated was rocky and with red soil that is infertile. Because the land is very rocky, crops do not grow well…So, when I heard about the project, I did not hesitate because I knew this could be the answer to our problems. I knew that wetlands were fertile pieces of land and if I got involved in wetland agriculture, I could get a better yield. Since the project started, especially in the initial years, we were able to receive our allocation that has greatly supplemented our own average harvest…That project became our lifeline.

Mrs. Sibanda's involvement in the project yielded more than just supplementary food. Table 8 shows the maize that accrued to the Sibanda household from the NGWP and their dry land farm.

Harvested Maize			
Year	**Tonnes (Wetland)**	**Tonnes (Dry land Farm)**	**Total**
1999	0.253	1.8	2.053
2000	0.276	1.3	1.576
2001	0.233	1.2	1.433
2006	0.04	1.5	1.54

Table 8: Wetland and dry land harvest for Sibanda household

The project also provided Mrs. Sibanda with technical expertise she could use to improve their dry land farm's productivity. She reported that, because of her position on the committee, she had quite easy access to the AREX officer and the master farmers on the project committee. She took advantage of this and interacted with them, asking questions about how to improve production on her dry land farm. Such interactions also resulted in the AREX officer visiting her home quite often and offering extension advice.

Case Study 3: Income generation from sales of wetland harvests.

One objective of the wetland project was to promote cash income generation from crop sales at both project and household levels. As indicated earlier, at project level, members were able to sell surplus maize and a bank account was opened. At household level, the Chihera household represents a few households who also sold some of their surplus harvest from the wetland project, thereby generating cash income for use in their households.

Mrs. Chihera had been widowed when her husband, a civil servant, had died when their four children were still young. Mrs. Chihera had then relocated from the city of Harare and settled in Mufiri on her husband's homestead where, by the time of my fieldwork, she was part of a four-person household comprising herself, two children and one adult relative.

The homestead site was just 300 metres from the edge of the project site. Part of a field she had worked on before the project was implemented, later fell within the wetland project's area. She explained that she had had no problem with the wetland project encroaching on her field and hence did not seek compensation. She did, however, become a project member, albeit not a committee member and, given the

proximity of her homestead to the project site, she provided storage space for the wetland's harvested crops. She also kept an eye on the project fields to ensure cattle did not get past the fence and stray into them.

She explained that since her husband's death her main challenge had been to raise money for her children's education and household upkeep. According to Mrs. Chihera:

> The project has benefited us in a number of ways. First, we were able to receive maize, wheat and rice from the project. Together with maize from the small wetland garden that I have at my homestead, and from my dry land farm, I found myself with more maize and rice than I needed for consumption. I then decided to sell the extra from my wetland allocation so that I could generate money for my children and buy some household things…My late husband's pension that I receive monthly is not enough to cater for the family's needs…After asking around, I realized that some project members were selling their surplus maize so I decided to do the same. I sold to some villagers who were not members and who needed maize and rice. In the first year, after selling that surplus, I managed to pay school fees and buy two hens. In the second year I bought kitchen utensils and again paid school fees. In the past few years, however, we have not been able to sell anything because of low yields.

Table 9 shows the maize that accrued to the Chihera household from the NGWP, her wetland garden and their dry land farm.

Harvested Maize				
Year	**Tonnes (Wetland Garden)**	**Tonnes (Wetland Project)**	**Tonnes (Dry land Farm)**	**Total**
1999	0.340	0.253	3.50	4.093
2000	0.400	0.276	2.90	3.576
2001	0.290	0.233	2.45	2.973
2006	0.315	0.04	2.70	3.055

Table 9: Wetland project, wetland garden and dry land harvest for Chihera household

The photo below shows the kitchen utensils that Mrs. Chihera bought from the income generated from the sale of her wetland harvest allocation

Picture 12: Mrs. Chihera and daughter holding kitchen utensils

The above cases show how some wetland project members found themselves with surplus food that would otherwise not have been available and that could be sold on the local food market. The wetland project not only provided food for members and their households but also became a source of income generation for members and of food for others in the area. Mrs. Chihera's background information shows that she did not have sufficient income from her husband's income and her own fields to support herself and her children. The NGWP thus effectively helped her, albeit only for a couple of years, to increase her ability to generate income.

Through interviews and informal discussions, I learned that not all the members sold some of their crops from the NGWP; in fact, only five had done so. For those that did sell their harvest, as has been shown in this case, the generated income helped in meeting household needs.

Case Study 4: Skills and knowledge

The benefits that accrued to members went beyond just food and income generation. The Dube household, for example, had its own small informal wetland field and managed to gain knowledge and skills from participating in the NGWP, skills and knowledge that were later used in their own fields. Mr. Dube became a project member as well as vice chairperson of the project committee and, as we have seen earlier, was also the single member of the workers' committee. Born in Mufiri's Banga area in 1935, Mr. Dube was the son of a family that had settled there in 1929 after relocating from Guruguru, another Shurugwi ward some 50 km to the West of

Mufiri. His wife was born in 1953 and they had married in 1970. As a young man Mr. Dube had worked in Kwekwe as a control attendant at what had, by the time he retired in August 1992, become Zimbabwe Iron and Steel Company (ZISCO). He then settled permanently in Mufiri to farm on a full time basis – something that had been his part-time activity until then. His involvement with the wetland project helped him expand his farming and administrative skills. As he said:

> The main advantage of this project was that it involved various stakeholders, like AREX and Chiredzi Research Station. These men and women who came to work with us knew a lot about their work…From the time we cleared the wetland until we planted our crops, they would tell us this crop must be planted by such a date and the wetland is managed like this and that…They made it a point to impart as much knowledge as they could because the project in the long run was to remain in the hands of the members and get extension service from time to time. For some of us who had wetlands [of our own], we observed closely and went back home and applied the knowledge or whatever I would have learnt from the wetland project. It was an eye opener. I learnt a lot of things which I still apply to my wetland farm to this day. The knowledge I acquired made a difference to my own wetland yields.

This case illustrates how the wetland project offered benefits beyond immediate material ones for members who, having grasped what they were learning, applied it in their own informal or undeveloped wetlands. Along with other data presented from the other three case studies above, it shows that, far from benefits being an illusion or a mirage – as postulated about such interventions by some post development critics (e.g. Escobar 1995) – the NGWP did produce some positive outcomes, even if, as I show in greater detail below, the project itself collapsed after just a few years.

Certain other benefits also trickled to committee members of the project. These included enhanced social status derived from being part of the management team of a big and, at least initially, successful project. The secretary of the project, who also owned a bottle store at the local shopping centre, spoke about her status having been boosted by her participation not only in the NGWP but also by being on the project committee. As part of their duties, committee members travelled to other farming projects and wetland project sites and thereby gained exposure and learnt lessons about how to improve their own project from their observations elsewhere. They also acquired leadership skills, as became evident when some committee members were selected to serve on other project committees and in local political party structures. For example, one of the project committee members was nominated to represent

women in the Ward Development Committee (WADCO). She accepted the nomination and was later elected for that post.

The short-lived early success of the NGWP confirmed the importance of being able to utilise wetlands to support rural livelihoods – especially for those local farmers who had access to such wetlands of their own. Moreover, the NGWP did help, if only briefly, to increase the members' capacity to move towards food security, to generate cash income from perceived surplus harvests, to acquire new wetland farming skills and for some, to access fertile wetland farming land. Reports based on other *Ngwarati* wetland sites in Zimbabwe have also shown that the technology has had the capacity to improve crop yields. Thus a FAO Report (2002:91) briefly reports how the *Ngwarati* wetland utilisation system in Wedza and Seke in Zimbabwe 'had the effect of raising incomes and food security'. It reported that the benefits that accrued to 39 members of the Maruta Wetland Association (MWA) in Wedza included food security from the variety of crops grown and from income generation from selling excess crops. The members were able to improve the quality of their houses, to buy agricultural equipment such as planters and scotch-carts, to afford to pay school feel for their children and to purchase TV sets and install telephone lines at their homes (FAO Report 2002).[54] Though the FAO Report mentions how farmers achieved food security, I still remain sceptical about the use of the term and would like to believe that the farmers were able to move towards a state of being food secure. Such examples however reflect the kinds of success stories of the *Ngwarati* technology that are suggested by the case studies I have presented above.

The potential capacity of wetlands to help people move towards achieving food security has been reported throughout Africa, including Zimbabwe, where some families have reportedly been able to increase household food production and generate some income from wetland activities (Kundhlande et al 1995; Sithole 1995; Woodhouse 2000; Kambewa 2005; Makhado 2006). The NGWP's first couple of years demonstrated that, with appropriate donor support, this was possible in Mufiri too.

[54] Available at ftp://ftp.fao.org/agl/aglw/docs/wetlands.pdf (accessed on 21 September 2010).

3. Disintegration of the Wetland Project

As indicated in Table 5, there was a decline in the project's production levels after a high point in its second year of operation. The high point occurred before I began my field work, thus my data for that period is based on private and official records as well as people's recollections collected during Focus Group Discussions and interviews. The period of decline that began in the third year of the project was also marked by various events and conflicts that eventually led to the disintegration of the project and ultimately to its collapse. The fact that my fieldwork occurred during this phase of the project enabled me to use observational and participant observation-generated data to gain insight into the collapse. During my stay in Mufiri I was able to observe various events and activities happening in and around the NGWP, most of which led me to conclude that the project was collapsing – discussed further below and in Chapter V. The AREX officer also reported that, from 2002, Mufiri ward had been encountering recurrent droughts that had affected farming activities and resulted in a decrease in yields for most farmers. Fieldwork started in April 2006 at which point the remaining 28 wetland project members were in the process they described as 'resuscitating the wetland project'.

Due to the drought years that occurred between 2002 and 2004, the vice chairperson explained, wetland activities had come to a standstill. In 2005 the remaining wetland members began wetland activities again at the NGWP. No rice was planted, due to a lack of the rice seed. As fieldworkers, my assistant and I became actively involved, during April and May 2006, by helping to harvest the maize crop. This gave us opportunity to meet most of the 28 wetland members, to create rapport and to observe the operations of the wetland project.

Harvesting of the maize crop was carried out over two days. On the first day, the project's decline in membership was apparent. I noticed that there were just 18 members, 12 women and 6 men, present for the harvest. This was despite the project having 28 members recorded.

The chairperson of the project committee coordinated the harvesting. He divided members plus the two of us into groups of five people each and the groups were each allocated sections of two of the five ridges to harvest the maize crop. The members

further organized themselves within their groups so that three started working from one end of the ridge and the other two from the other end. This was done so that they could meet presumably in the middle of the ridge. Each farmer had a sack and they each proceeded to remove maize cobs from the stalk and to throw them into the sack and then move on to the next plant.

Despite the wetland project having 15 ridges, maize had been planted on only five of them. The chairperson explained that that had been because of the decline in membership so that they could manage to plant only five ridges. Also noteworthy was the extent to which the wetland site had been overgrown by weeds so that members had to manoeuvre between the weeds and maize as they harvested the crop.

Picture 13: Harvesting in progress at NGWP in 2006

As I moved through the ridge on which I was working I heard members sharing stories and jokes, and laughing together as they harvested. After having greeted all the members, I had joined one group and participated in the harvesting processes. I was interested in their interactions and stories of the NGWP. Not all the stories were amusing: One woman member spoke about a funeral that had occurred recently in one of the villages and how villagers who had attended the funeral were complaining about the lack of meat at the funeral. Only vegetables and *sadza* (maize meal porridge), she said, had been served during the funeral. One of the ladies in the group commented that some people wanted meat at funerals and yet at their own houses they did not even have meat or even locusts with their meals, a comment that, despite the first member's complaint, made all the other members laugh. Such stories

indicated that despite members being there to harvest, their minds were less on the project and harvest than what was happening in Mufiri.

The harvested maize was stored at one of the nearby wetland members' houses, about 250m away.[55] Because the project had no storage facility of its own, she had volunteered a room in one of her houses for the project's maize. So everyone who had a sack that was full of harvested maize went to empty their sack at that house, although it seemed from what I observed that it was mostly women carrying the maize, not any of the few men there.

Picture 14: Women carrying maize to storage facility and the notorious weeds

After having worked for about 30 minutes, the members of the group with whom my assistant and I were working started to speak about the first years of the project, contrasting it to the project's current state. One member narrated about the national prize and how the then Minister of Agriculture had come to visit. As I observed the faces of the women and men in the group, I saw that they were full of pride as they spoke about the project in its early years. They then went on to explain how the drought of 2003 and 2004 had put a 'damper' on the activities of the wetland, and had undermined its former glory. They also spoke about how their membership had declined over the years but emphasised that, despite that, they were all determined to continue working on the project.

[55] Mrs. Chihera from Case Study 3.

After about an hour, we approached another five member group whose members had been working from the other end of the ridge and so we all began harvesting on another ridge. By about 1pm everyone had begun complaining they were hungry and the chairperson called for a meeting outside the wetland's surrounding fence. As we gathered, I observed that everyone looked tired and worn out from the heat and hard work. We sat outside the gate and the chairperson marked the attendance register while the group discussed planting winter wheat, with some members saying it that was too late to do so and others that there was still time. What became clear was that, without the AREX officer or anyone else to whose authority they could turn, no decision could be reached. The discussion about planting the wheat was left hanging for a decision was to be made at another meeting. They did, however, agree to come back the next day to finish harvesting the maize. I was then asked to say a few words and I explained a bit about our research activities before we all left the wetland site.

The second day of the harvest entailed similar activities and organisation of work groups as on the first day. When I arrived with my assistant, we found 21 members, 15 women and 6 men, had already been allocated to work on the remaining two ridges. The vice chairperson was in charge because the chairperson had been called to Shurugwi town for an emergency ZANU PF meeting. When we started harvesting, I realized the new group was somewhat less exuberant and filled with laughter than had been the case the previous day. Responding to our questions, one woman member commented that the members were tired from the first day of harvesting and that they were under pressure to finish harvesting in the wetland on that day.

On that second day of harvesting, two women volunteered to carry the harvested maize to the storehouse, and at one point I offered to assist. Returning from the now increasingly full storage space, I noticed two children working on the wetland. Wondering whether they attended school, I stopped briefly and spoke to the kids. Once having returned to our ridge, I raised the issue of the children's presence with the others there. Mrs. Chihera explained that the father of one of the children was reported to have said that he could not afford to pay fees for him. The other project members voiced their displeasure; they spoke about how the father was a drunkard and was always seen drinking beer and yet he could not pay school fees for the child. Members concurred, however that in the case of the other child, it was a sincere lack

of resources by the parents that had resulted in the child not being able to attend school.

We finished harvesting on our allocated ridge and we decided to go and help other members who were still working on their ridge. I was tired and it was blisteringly hot. We worked until 12:15pm. I looked around and the pace of working and carrying the maize was now slow and people reported that they were truly tired. At a distance I saw a group of four women negotiating with the vice chairperson to allow members to leave since they were tired. After the vice chairperson agreed to people's requests to go home and rest.

After harvesting, the remaining NGWP members met at the house where the maize had been stored and began to process it. I also participated in the removal of the grain from the cobs and continued to interact with the wetland members whilst doing so. Below I present pictures of the processing activities.

Picture 15: Women removing maize grain from cobs

Picture 16: Men talking as they remove maize grain from the cob

Picture 17: A closer look at the process of removing the grain from cob

Picture 18: A member preparing a combined lunch of sadza and vegetables for project members

Picture 19: Working lunch as harvesting continues.

Picture 20: Final product – maize grain for distribution to members

The total maize harvest from the 2006 wetland harvest in which I participated was just 1.3 tonnes, and each of the remaining 28 members was allocated 40 kilograms of maize. The remaining 180 kilograms (nearly 14 percent of the harvest, rather than the constitutionally required 10 percent) was stored to be sold to raise money to buy inputs such as maize and rice seed for the next farming season.[56] The AREX officer reported that part of the government-run subsidized input programme was to encourage farmers to use hybrid seeds and not to use seeds from previous harvest, that way hopefully to improve yields.

The two days that I spent harvesting maize, and the two further days I spent with members whilst removing the maize grain from the cob, showed me that the project

[56] The Grain Marketing Board input scheme facilitates access to inputs such as seeds, fertilizers, chemicals and herbicides by farmers. Before 2005, subsistence farmers could access an input loan and pay for the inputs via the option of paying in the form of produce (through the GMB) or cash after the sale of harvested crops. After 2005, farmers were required to pay cash up front for the subsidized inputs. This explains why farmers in Mufiri were having difficulties in securing inputs. Available at http://www.tradeknowledgenetwork.net/pdf/ag_scenarios_south_africa_zimbabwe.pdf (accessed on 16 September 2010).

was in a process of disintegration. The project at this time presented a frail picture compared to reports of its earlier years. For example, even though the records revealed that there were 28 members, they did not all come for harvesting. Only 22 members participated in the activity for removing maize grain from the cob. Working in the wetland provided me with a contrasting picture to the one that had been presented about the apparently successful years. Only 5 of the total of 15 ridges had been planted under maize, with the remaining ridges lying fallow. From my own observations it seemed that the few remaining members were struggling to provide the much needed labour for the wetland project and had inadequate access to resources to purchase sufficient seed. I observed that, despite the convivial laughter during the first day of harvesting, there was none of the 'excitement and enthusiasm' that was reported as having been the order of the day during the initial years of the project, although there were still moments of good fun between friends during at least the first day of harvesting. The harvested 1.3 tonnes of maize in 2006 was in sharp contrast to the reported first, 1999, harvest of 22 tonnes. As I interacted with the remaining members, they painted a gloomy picture of the present status quo and of the immediate future of the project as they saw it. One project committee member lamented that:

> Our project has lost its glory…it is no longer as it used to be…its like we are working in a totally different project…the project used to have many members and we used to plan and produce good results…tonnes and tonnes of maize…now look at the harvest we got this year…what is that compared to our earlier harvests?…it is disheartening.

I also noticed that the AREX officer did not attend the wetland harvests or project meetings and it soon became evident that the project was not receiving any extension advice. I spent the next few months observing the project so that I could fully understand the processes that were occurring and whether the project was indeed collapsing or not.

4. Indicators of the collapse of the NGWP

The following events that occurred after the harvesting of the 2006 maize crops were indicators that signalled the collapse of the NGWP during the period of my fieldwork.

4.1 Late wheat planting

After much procrastination and poor planning, the 2006 winter crop was planted late – only in July, when it should have gone in two months earlier – with disastrous results. The procrastination was a result of members spending much time debating whether to plant a wheat crop or not because they were not sure of the moisture levels in the wetland. In the past, the AREX officer had given them extension advice on the dates; but at this time she was no longer even attending wetland activities, let alone providing advice. This was due to conflict that I discuss in Chapter V. Commenting about the situation, the chairperson reported that:

> Because of relationships that have turned sour between the project members and the [AREX] officer we find it very difficult to approach her. We have tried in the past but things are no longer the same… there was a lot of talking and back biting that happened and in the end we suffer and the project as well …we end up guessing, especially when it comes to wheat planting dates, because before the project we were not planting any wheat so have little of our own experience with that crop.

I attended two meetings about the wheat planting and during both these meetings members argued whether it was necessary to plant the wheat or not, pointing out that they lacked the technical knowledge of wheat planting especially given the climatic changes that they said were occurring. Erratic rainfall, according to one member, made it difficult to estimate the moisture content of the wetland. Despite the debates, the vice chairperson mobilised a few members and hurriedly came to the wetland and planted a wheat crop rather late in the season. When the rest of the members appeared a little later for other wetland activities, they expressed surprise at the fact that wheat had indeed been planted. And when I later asked the chairperson why wheat had been planted when – after just a short time, and despite the seeds having germinated – the young plants had simply wilted and died in the field, he explained that he and the committee had decided to plant the wheat saying that 'It was more of a learning experience which will equip us for next year's planting season'. His comment and the crop's lack of success indicated the extent to which project members were dependent on expert advice which, by 2006, they no longer able to access.

4.2 Lack of coordinated planning of project activities

Soon after planting the wheat, the project chairperson announced at one of the weekly NGWP meetings that he deemed it necessary to hold what he called an annual general

meeting. He planned to invite local leaders, the chief, the AREX officer and local farmers. The general meeting was scheduled for July 2006 and the aim was to discuss resuscitating the NGWP, mobilising finances for the project, planning for the next farming season and the role of the AREX officer.

The general meeting was different from the usual weekly meeting which included members only. According to the chairperson, general meetings such as the one he was planning had been held in the past when the NGWP was apparently successful. The date for the scheduled meeting came and no meeting was held. For three months wetland members, including the research team, gathered every Tuesday at the project site to get an update on the proposed so-called annual general meeting.

The scheduled general meeting in fact never took place and, one by one through the course of 2006, members stopped coming for the weekly Tuesday meetings. The project chairperson was said to be at his national land-redistribution programme farm in another part of Shurugwi and the remaining committee members said they could not proceed without his approval and presence. Indeed, I sensed some fear amongst committee members who hesitated in planning anything without the chairperson, a man who, as I explained earlier, was also a key figure in local and district politics.

After months of inactivity at the NGWP, an emergency meeting was held in November 2006. It assembled seemingly spontaneously under a tree after a ward meeting without the chairperson there and with only three project members and two committee members present. The vice chairperson, explaining that he had sought and received permission from the chairperson, used the meeting quickly to arrange to plough and plant maize in the wetland. Once again maize was planted on just five ridges and again no rice was planted in the furrows. The planting was done in late November, a time that was already late for wetland agriculture, as indicated by the fact that those who had their own informal wetland gardens and farms had planted maize by mid October and had already seen it germinate and begin growing. Such lack of planning proved to be disastrous for that year’s maize crop.

4.3 Poor harvest in 2007

Despite having planted the maize, members failed, once again, to return to the wetland each Tuesday, as was stipulated in the constitution. By January 2007, when my assistant and I resumed fieldwork after a Christmas break, we saw no activities being carried out in the wetland at all. The area lay idle; the maize crop had not germinated well; and it seemed that no one had come to weed or perform any other work in the wetland. See picture 21.

Picture 21: January 2007 scattered maize crop between weeds

From our observations, it seemed that the 20 to 30 maize cobs that we could see, yielding less than 10kg of maize, would constitute the whole of the wetland's 2006-7 summer harvest. This was despite the wetland dam at this time still holding some water, an indication that the wetland was moist and that, with proper planning and cooperation, a better harvest could have been realized. The sight of the wetland in this condition was disheartening as compared to January 2006 when at least the maize crop had been weeded and looked set to produce some maize (see picture 22). One male project member I spoke to said that, he, like other members, was not happy with the 'status of the project' which he blamed 'on poor planning and low membership turnout for wetland activities'.

Picture 22: January 2006: A better maize crop than in January 2007

For the remainder of our fieldwork period, until July 2007, we observed no further wetland activities being carried out. Some project members spoke of trying again in the 2007/8 agricultural season. However, during short visits to the field site in July 2008 and again in January 2009 we were told by the AREX officer and some wetland members that no farming activities at all had been carried out in the NGWP during the 2007/8 season – a clear indication that the project had slowly disintegrated and was indeed reaching a point of collapse. Faced with the droughts and erratic rainfall that had characterized previous years in Mufiri, the wetland could have been used as a means to insure against the ravages of drought and as a source of food, especially if one accepts the project planners' reports that the *Ngwarati* technology 'was the most ideal farming system for achieving optimum yields from maize (6219kg/ha) and rice (2129kg/ha) (FAO Report 2002: 91). The NGWP had the capacity, as shown in the initial years, to help members in terms of food security and income generation; yet it had not realised that potential.

5. Causes for the Collapse of the NGWP

The indicators which pointed to the disintegration of the project led me to realise that the project was collapsing due to both internal and external causes. Internal causes centred on activities and social processes such as local level politics that had occurred in the project. I discuss in detail in Chapter V the events that occurred in the project that led to conflict between the AREX officer and project members. Five members of the NGWP that I interviewed concurred that internal causes as well as external causes were instrumental in the disintegration of the wetland project. In terms of internal causes, the following reasons were singled out:

> After 2001, I can say trouble was already brewing up in the wetland project because of differences. Some members were not happy with the AREX officer and the way she was handling the affairs of the wetland. It was in such a way that she controlled the project and members were not happy because it was our project …so there was a lot of talking and eventually the officer left and things have never been the same (wetland member)

A project committee member further elaborated on the withdrawal of the AREX officer, saying that:

> With her support and extension service we were able to have good harvests. She would tell us do that, do this and we would follow and things were happening and progressing well [*saka taiburitsa zvinhu zvakanaka*- so we produced good things]. She would source inputs like maize seed for us and bring them to the project. She would assist us in writing our proposals and requests for inputs and she would submit those for us. After she left us nothing went on well for the project [*saka hapana chimwe chinhu chakazombonyanyo kubudirira pavakangobuda*]

Withdrawal of extension support and advice proved to have a negative effect on the wetland project which still required regular AREX inputs and linkages with the DRSS whose staff had developed the project on a pilot basis and had indeed, by virtue of the way funding was managed, controlled its every activity. One member commented that, although they had, as individual local farmers, acquired *Ngwarati* based wetland farming skills, they still needed the inputs and funding from the various organisations that had been responsible for the implementation of the project in order to keep the relatively large-scale project viable.

Another member explained that one of the factors for the collapse of the project was:

> We simply did not have inputs after the donors left; we could not afford to finance all the activities…look at us, my child, how can the government or anyone expect us to generate money to continue with the project?

On internal causes, a project committee member said:

> We might try and blame the AREX officer and the donors but if the truth be told…us members also contributed to the downfall of the project...some members left the project to join other projects…there was friction among the members over resources and how the wetland should be managed especially after the AREX officer left…there was too much talking and less constructive work.

Another cause for the disintegration was the mushrooming of numerous projects in Mufiri at this time which gave farmers alternative projects to join and helped to draw many away from the NGWP. After the NGWP's initial apparent success and its widely publicised celebration, the AREX officer reported that the AREX district office had referred a number of donors to Murifi ward where they were sent to observe and report on the apparent success of the NGWP. Such publicity resulted in donors such as Oxfam, Christian Care and UZ researchers coming to Mufiri after 2001. But instead of helping with the NGWP, which they saw as already up and running, the new donors and research units from UZ brought in their own new projects.

From my observations, and the AREX officer's records dated 2005, 31 wetland members had abandoned what had become a conflict ridden and cashless NGWP in favour of new projects in the area. At each of these new projects farmers were provided with free inputs of a kind previously made available in the NGWP, but which had since ceased – the project members having by then been expected to be able to supply such inputs themselves. I interviewed two women from the NGWP who had joined another agricultural project – in both their cases; they had joined the Mufiri Consolidated Garden project (MCG).[57] The MCG was a project implemented in 2002 as part of the South East Dry Areas Project (SEDAP) and funded by IFAD and the government of Zimbabwe. One of the women, Mrs. Sibanda[58] reported that

> Due to decline in yields in the wetland project, I decided that I needed another project to help, just like the New Gato project was doing. Together with Mrs. Mutsa, another member of the New Gato project, we decided to spread our wings so that we could be cushioned in case the wetland project failed to deliver like it used to. We are still members of the wetland project…I joined the MCG because I did not want to go back to the place I was before the project where I had no sources of income for myself and where I struggled to make ends meet in terms of supplying food for my children. *Mandunduru akatingwadza* (the wetland project made us very clever)… It opened a new world for us. In the MCG project, I got 5 beds to plant my vegetables and some maize. I sell vegetables locally and save the money. Those vegetables, we also use for household supply…..

[57] I discuss Mufiri Consolidated Garden in detail in Chapter VII.
[58] From Case Study 2 in this Chapter.

Picture 23: A woman gathering kale vegetables and onions for selling from the MCG

Mrs. Sibanda's and Mutsa's cases exemplify how people turned to new projects that arrived in the area after the NGWP's decline had begun. This was precisely because they offered opportunities to Mufiri farmers or residents that had been available with the NGWP at its start, but had then fallen away. The case of the MCG also illustrates how the apparent success of the NGWP drew other donors to Mufiri. The new donors such as Christian Care, UZ and Oxfam came with their own ideas about what to donate which again was a product of dynamics in the development donor world rather than local dynamics. New projects resulted in competition between the different projects for the limited energies and interest of local people. As with the MCG case study and other projects, local people wisely chose to go to the project that, for the moment, offered them the best returns on their investments of time and energy. Because they knew that donations would not keep flowing to an established project, they sensibly shifted to new ones where resources were still flowing. For local people, the introduction of such new projects offered opportunities to spread their risk and thus help them improve their chances of achieving food security. But it was precisely such choices by members of the NGWP that helped contribute to the disintegration of that project.

In terms of the causes of the collapse, other reasons included broader issues such as the fact that donor funding was cut, making it impossible for the Ministry of Agriculture and Rural Development to continue providing resources to the project. The project chairperson summarised the reasons as follows:

> Yes, we had our own problems in the project but some of the issues were beyond us. For example rain: what can we do? We have been having recurring droughts, so even if you plant crops you have to wait for the rain and our ward has not been fortunate. Secondly, the issue of resources to run the project…the donors just left us before the time stipulated time. We were left high and dry...I also blame our government because after the donors left no one came to discuss with us the way forward and how to finance the project... it was a good project…we saw it with our own eyes but it pains us to see the project crumbling, again before our eyes.

The problem of financing the project was confirmed by an IFAD Zero Draft Report (2007:79)[59] commenting on the NGWP. It stated that 'although it appears that the technology was sound, the investment costs – at US$3600/ha in mid-2003 terms – were probably beyond the capacity of typical small holders from their own resources'. The report further comments that as the project developed, 'communal ownership and management was a problem'. The problem of ownership of the NGWP is discussed in detail in the next chapter.

Four years after the inception of the project, IFAD and AuSAID withdrew its financial support because of loan arrears by the Government of Zimbabwe (GoZ) to the two organisations. Members of the project complained that the donors had withdrawn their support prematurely, well before the five years that they had agreed to when the project was first initiated. This meant that local farmers had found themselves having to shoulder the running costs of the project sooner than they had anticipated. The premature withdrawal of the donors was indeed documented in a Government of Zimbabwe (GoZ) document that reported that,

> The International Fund for Agricultural Development (IFAD) financed projects such as the Smallholder Dry Areas Resources Management Project (SDARMP) and South East Dry Areas Project (SEDAP) that promoted increased crop production and diversification but suspended disbursements to these projects because of loan arrears.[60]

Another Government of Zimbabwe official, in a speech at an IFAD meeting in 2003, reported that

> With the help of IFAD's loans and grants, Zimbabwe's poverty reduction strategies were poised to achieve considerable success had it not been for the suspension [withdrawal of funding by IFAD due to non payment]. Such strategies include small scale irrigation schemes

[59] Available at http//siteresources.worldbank.org/RPDLPROGRAM/Resources/ANDPovertyREduction in Ea&SA-DRAFT.pdf (accessed on 21 September 2010).
[60] Government of Zimbabwe – Support to NEPAD – CAADP Implementation (NEPAD Ref 04/02E). ftp:ftp.fao.org/docrep/fao/007/ae569ea569e00.pdf (accessed on 13 May 2010).

> to boost small crop production, livestock restocking, environmental protection and conservation and applied research to ensure sustainable production and the empowerment of rural communities….Zimbabwe suffered from consecutive years of drought that impacted negatively on agricultural production. Faced with the task of averting humanitarian crisis, the Government had used the much-needed foreign exchange to import food, fuel and medicines and had therefore been unable to meet its obligations to IFAD in 2002 and 2003 timely. This led to the suspension of disbursements to SEDAP and SDARMP projects.[61]

As shown in the above statement, the GoZ failed to service the loans borrowed from IFAD and hence the suspension of the loans. After the withdrawal of funding, the project began to collapse as local farmers struggled to keep the project going. Of interest as well was that after my discussions with project committee members and the AREX officer about the project's finances, it became apparent that the project did not, at any stage, have a proper local budget. Financial support, drawn from the donor funds, reached the project through the AREX offices. As I discussed the finances of the project, I realised that there was neither a budget that I could find nor a set of accounts to show what had been spent, and on what, after resources had been provided. According to the chairperson:

> The project finances were handled at the district AREX offices and not by us. We just received inputs and the extension services and support that was needed to implement the project. When you ask me 'how much [did] the project cost?' I do not know…All I know is when we needed rice or maize seed, the AREX officer sent a request to Chiredzi Research Centre and Shurugwi AREX offices and then our inputs would be sent to us…

The AREX officer similarly explained:

> This project was part of the bigger SDARMP project…locally we did not have a specific budget or an account for the project where all the donor money was handled. The budget for this project was handled at district and national level but the members had access to various services and inputs; but these were financed at a higher level. We only dealt with what was given to us in form of inputs, equipment and other services we requested such as visiting other wetland sites.

Such a financial arrangement, I would argue, also contributed to the collapse of the project. NGWP members did not have economic control of the project and were left in a difficult place after the donors withdrew funding. What this meant, then, was that the *Ngwarati* technology, at least at the scale of a communal project, was

[61] Available at http://www.ifad.org/events/gc/28/speech/zimbabwe.htm (accessed on 26 May 2009).

unsustainable for local farmers, primarily because of its running costs. For the project to be sustainable, the members needed either to be able to generate sufficient income via the sale of produce to recapitalise the project even after the withdrawal of funding, or to be able to rely on further subsidies from outside the project itself. Moreover, members of NGWP were unable to save enough of their harvest from one season to the next in order to use what was saved as seed for the subsequent season. The farmers had to use hybrid seed because the developers of the technology encouraged farmers to plant modern varieties of maize and rice because they had reportedly proved superior to the traditional seeds (FAO Report 2002). Given such a scenario, the NGWP had no chance of being sustainable.

The problems of sustaining a project such as the NGWP were also confirmed in another wetland project site in Zvishavane in Mutambi Ward where a similar SDARMP project had been implemented. I briefly did some fieldwork on a SIMA/IDRC multi-disciplinary project there between 2004 and 2005. That research project focused on the Zvishavane wetland project. As I have described to have been the case for the NGWP, the Zvishavane wetland project too was collapsing and no longer viable, with farmers struggling to maintain and sustain it. The *Ngwarati* technology, with its high input and modern equipment requirement at the beginning of each farming season, was unsuitable for local farmers, whether in Mufiri or in Mutambi, Zvishavane; and this resulted in declines in food production on both projects as soon as donor funding was no longer available to subsidise the operations. What this indicates is that the *Ngwarati* technology can work as a short term measure and while donor funding is available to fund it, but as a long term strategy, it is not self-sustainable, certainly not on a large scale as a communal project.

The disintegration of the wetland project had a negative effect on members and their households. Ten members that I interviewed pointed out that the problems at the NGWP had resulted in a decline in the harvests their households received. Webb (1991) points out, from a study carried out in the Gambia, that the collapse of a project has implications for participating households. Webb's study explored the effect of the collapse of a rice irrigation scheme on project members. He (1991: 339) comments that 'when development projects fail, the first losers are the participants themselves'. A look at the NGWP during fieldwork showed a steady decline in wetland activities and productivity levels and immediate losses to at least some

members though, as I show too, some also benefited by transferring their new skills elsewhere.

Records from the NGWP showed a decline in terms of the harvested crops. This was also evident from individual household records that showed a decline in the allocated harvest per participating household. The collapse of the wetland thus meant an erosion of food supplies and income generation for participating households – not only did the wetland fail to produce but their labour, invested there rather than on their own fields, was lost too.

Webb (1991) shows, in his study of the Agricultural Development Project (ADP) in Gambia, how after the decline of the project there was a decline in rice harvests. This, in turn, negatively affected many former beneficiaries as yields began to decline and most farmers found themselves with smaller harvests than those to which they had become accustomed whilst the project was effective. The same occurred with the decline of the NGWP and with the sharp fall off of allocated harvests after 2003.

As shown by case study 3, some project members were able, during the few successful years, to sell their surplus crops and generate some income for their households. A decline in productivity on the project thus also meant a decline in income earned by those members from the sale of crops.

Webb (1991) documents how farmers from Cha Kunda in Gambia began struggling with their loan repayments after the decline of their project, and how some had farming equipment repossessed as a result. Five of the NGWP members who had reported selling part of their wetland harvest allocations now reported that, with the disintegration of the project, they had had to look for other income generating opportunities and had turned to activities such as market gardening – in part supported by the new Mufiri Consolidated Garden project – and for some, brewing and selling beer.

The decline of the NGWP also resulted in the disappearance of self-grown wheat and *Mhara* rice from the diet of project members and their households. These were both crops that had been introduced to Mufiri through implementation of the NGWP -- innovations about which project members spoke fondly for their having brought

variety to their diet, and about which they complained when the project's decline had eroded their access to such benefits.

6. Conclusion

Despite the limitations of development interventions, some such interventions, including the NGWP can be seen to have played an important role in improving local people's chances for food security, and indeed in this instance to have done so over the short term. The apparent initial success of the NGWP resulted in benefits accruing to participating households through an increase in food supplies, in cash-income generation opportunities and in their members' acquisition of wetland farming skills and knowledge. Despite its initial success, however, the project collapsed and its long-term goals of food security and income generation became pipe-dreams only, rather than a reality for NGWP members.

The project began to decline after 2004. Various events were instrumental in the disintegration of the NGWP. Some of these, such as local level politics and conflict, are discussed in detail in the next chapter. Indicators of the project's disintegration included a decline in membership, falling production levels, reduction in the participation of the AREX officer to a point where she was almost wholly absent, and a general decline in wetland activities. When I say 'decline of the NGWP', I mean a change over time (2004 – 2007) of the NGWP from an efficient (albeit subsidised) to inefficient (unsubsidised) farming cooperative. The period 2004 to 2007 saw the project slowly disintegrate and lose its cohesion or unity. A number of causes, such as erratic rainfall, local conflict and particularly the earlier than planned withdrawal of funding as a consequence of national government practice vis a vis international loans agreements, , have all been cited as having contributed to the decline of the project. What these points show is that projects such as the NGWP need very long term or even permanent subsidisation to remain viable.

Yet, as I show in Chapters VI, VII and VIII, the project did have some positive albeit unintended spin offs. Before we go on to consider those, however, let us turn to the details of local level political conflict that was central to the project's collapse.

V: SOCIAL TENSION AND VILLAGE POLITICS: THE NGWP'S COLLAPSE.

> It is not enough to revere participatory development, to say 'listen to the people, consult the poor and let them tell us their needs', as if they all agree with each other. People disagree and compete, partly because their interests are differentially defined by, for example, their colour, ethnicity, class and or caste. Not recognizing conflicts between groups leaves control in the hands of the more powerful by default. (Crewe 1997: 76-77)

1. Introduction

As a new PhD student setting out to do independent fieldwork research, I was excited by the chance to study the New Gato Wetland Project in Mufiri Ward. During my initial one-day visit in January 2006, I heard about the success stories of the project. As we toured the project site, members of the committee and the AREX officer were in agreement. This was the perfect project for me since it would enable me to study the socio economic impacts of the project and document the success story. As I drove back, I was 'happy' about the unity and smiles I had just seen among and from project members and the AREX officer. After settling in Mufiri Ward a few months later, however, I soon noticed that the AREX officer was not attending any wetland activities, the project had fewer members than had been indicated and I could no longer see the unity I had observed on that first day. What was really going on and why?

I set out to find out and the word that I heard repeatedly from some wetland members was 'conflict'. Conflict? I asked myself. As I later discovered, conflict had ripped the project apart and, yes, what could they have said to a one-day visitor who might not have returned – they had to present a united front. When I probed further, I was told that 'You do not expose your dirty linen in public'. As fieldwork progressed, I began cautiously to explore the issue of conflict. I thereby began to understand that projects are not implemented in a social vacuum but that pre-existing social contexts may be influential in the implementation of the project.

Having shown in Chapter IV the apparent early success and then the collapse of the NGWP, I show, in this chapter, how local political tensions, competition and dynamics contributed significantly to its collapse and failure. I focus on the role of

local political processes and how they affected operations by creating tension that led to deepening conflict in the project. I follow Swartz (1968:1) who claims that politics 'refers to the events which are involved in the determination and implementation of public goals and/or the differential distribution and use of power within the group or groups'. I also focus specifically on the role of social tension in the disintegration of the project.

In order to develop my argument, I define conflict as the actual or perceived opposition of needs, values or interests as they occurred in the NGWP (see Swartz 1968). By using conflict as a concept in that way, I focus on the social disagreements, conflict of interests and clashes that occurred in the NGWP. I also discuss how unresolved conflict resulted in stress and tension among the members and with the AREX officer, and how that in turn helped push the project into decline and eventual collapse. As indicated above, I initially assumed that the project was doing well and that I would focus on its role in supporting and helping to sustain the lives of local people. However, I soon realized that the project had foundered on both pre-existing deep-rooted and more recently developed local conflicts.

In my analysis of the conflict that I observed and was told about, I draw on Swartz's (1968:3) distinction between 'political field' and 'arena', a distinction he developed for analysis of local level politics. Building on that distinction, Swartz argues that one should go beyond focusing on and studying a political structure or system, and should rather examine political processes, social arrangements and use of power, all within the political field and arena. For Swartz (1968) a political field is constituted by a set of persons and their interrelationships, and how members of that set are structured in order to achieve some kind of common goal – even when conflict arises over how to do so. Swartz (1968:9) defines the arena as the 'social and cultural area which is adjacent to the field both in space and time'. The persons in the arena are drawn into the political field situationally.

In my analysis, the project members plus all the people who were involved in the implementation and operation of the project, including local players such as the chief and the ward councillor, constituted a political field of the kind to which Swartz (1968) refers. These different actors operated in what Swartz might have called an arena, which in this case was the NGWP project itself. As I show in this chapter,

those in the political field contested and sometimes cooperated over how to use, dispose and generally handle the project, ostensibly to ensure its success.

2. The role of local village politics

Local politics plays an important role in rural communities in Zimbabwe, where both government and the ruling political party's administrative structures have been 'decentralized to village level to create a framework for expanded delivery of services to the peasant communities to redress the imbalances of colonial neglect' (Mandondo 2000: 10). The local leadership structures described in Chapter II, such as the chief, sub chief, village headmen and political party ward representatives, play an influential role in development projects such as the NGWP. The various structures represent different levels in a hierarchy of power, authority and control that operates in especially rural wards such as Mufiri. They are instrumental in the facilitation and inception of any development earmarked for local communities. Projects are vetted and, to some extent, approved through these structures before any form of implementation can take place. This process opens the way for personal interests and manipulation, in some cases by key leaders who dominate at particular levels and exercise power over those lower down the chain.

The NGWP, like any other project, went through the kind of vetting process whereby local leaders gave it the final approval and then began to lobby for the project together with the AREX officer in the ward. One member, whose farmland was taken for the project, reported on how, prior to the project having been publicised, she was 'visited for some diplomatic discussions about the project and how it would take up part of her field'.

Those same local leaders found places on the NGWP committee. For example, the chairperson, the vice chairperson, the treasurer, the secretary and one of the committee members had all held leadership positions in the local ZANU PF committee before the project began, and continued to do so. They had also all been party to the process of agreeing to the project's implementation. Local village politics therefore found its way into the project from the very outset via some committee members who also held posts within the ruling party structures, at both district and ward levels, while some also held positions within the formal local

government and the traditional administrative structures. Given such a scenario, the dominant national political party (ZANU-PF) was able significantly to control what went on in the NGWP. But in doing so it also created opportunity for conflict among members of the committee in terms of their varying interests and perspectives.

Because members of the NGWP were also actors within other arenas of Mufiri politics, some members brought into the project the 'political power, resources, values and meanings' they already possessed by virtue of those other roles (Swartz 1968:9). As a result, it became difficult for some project members to separate the different power bases from which they operated from the NGWP arena, and they tended to use such power as they derived from those other arenas within the NGWP itself. For example, during fieldwork I closely observed Mr. Chiko – the project chairperson who was also the ZANU PF ward vice chairperson and a committee member of the ZANU PF district committee. His presentation style at political and NGWP meetings was the same in terms of approach, his commanding and authoritative voice and his persistent giving of orders. During one of the harvest days in 2006 that I described in the previous chapter, he told the members that they should be thankful to the Party that had brought the project to Mufiri. He stressed that the remaining members must work hard and not disappoint their leaders, either at local or national level, since it was they, he suggested, who had been instrumental in the implementation of the project.

Moreover, from what I observed, it was clear that wetland members rarely challenged him openly in terms of decision-making. A good example is the late planting of maize in the wetland that I have described in Chapter IV. Members of the NGWP committee reported that they had had to wait for chairperson to give them the go ahead to plant the maize. As I pointed out earlier, I also sensed some fear among the committee members to the extent that they would not plan for the wetland without the chairperson's permission or approval. One of the committee members confided such fear to me when she commented that 'it is problematic to make decisions for the wetland project especially when the post holder is not there. I am afraid to influence other members to plant the maize crop in his absence because the repercussions will be too much for me to handle'. Some other wetland project members also echoed such sentiments. Planting of the maize crop only went ahead after approval by the

chairperson. The NGWP was supposed to be a non party-political project but it was never able to operate as such.

Attempting to achieve the supposedly apolitical goals of the project became a political process in and of itself, precisely because use of power and performance of political office became embedded within the activities of the project. For example, one project member, not a member of the project committee, referred to the wetland project committee as a 'committee of politicians and silent underdogs'. That member also reported that the committee had 'four strong ruling party members who all sat in various local and district party structures'. All the other project members I interviewed felt that these four committee members were unable to separate party and thus national politics from the work of the project. Mrs. Mugwagwa reported that 'some people in the committee behave as if the project is a party project, they seem not be able to separate project activities from ZANU PF business'.

What the above suggests is that the wetland project became a vehicle for enhancing or pushing the political agendas of those local people who already occupied positions of local power. This became yet more apparent during the 2006 primary elections for the post of councillor. One of the ZANU PF affiliated committee members, Mr. Vafana,[62] began mobilising wetland members to vote for a certain wetland member who was running in the primary elections. Only women were supposed to run in this particular election in order to meet a set of nationally determined affirmative action criteria, and a woman who was allegedly romantically linked to Mr. Vafana was one of the candidates. The candidate, Mrs. Mate, was a widow who stayed in Chiriya village with her four children. Her husband had died eight years previously, reportedly after a short illness. I observed as Mr. Vafana used project meetings to campaign for her, targeting especially women members and repeatedly telling them to 'vote wisely'. He thus used his position, both in the party and in NGWP committee, to push his own interests and also to attempt to continue controlling ward politics through her.

However, another influential woman and NGWP member, Mrs. Mataka, was also running for the post and consequently the NGWP became a vicious campaigning base during the primary elections. During wetland meetings, she repeatedly but informally discussed her vision for the ward with women members, thus creating tensions within

[62] Mr.Vafana was the Treasurer in the NGWP project committee during the time I did my fieldwork.

the NGWP between supporters of the two women members. During this time I observed that women who supported a certain candidate sat and worked together and avoided members supporting the opposing candidate.

As it turned out, Mrs. Mataka won the election, leaving Mrs. Mate the loser – much to the disappointment of the Mr. Vafana who openly said that 'I did not expect her to lose but that is the game of politics, people choose whom they want'. The project committee soon acknowledged Mrs. Mataka's new position as ward councillor during wetland meetings, the chairperson or whoever was chairing such a wetland meeting explicitly asking people to greet her and giving her an opportunity to speak if she so wished. However, because of the decline in wetland activities that I have described earlier, it was not possible for me to observe the full extent of the effect of her new position as ward councillor on local politics as it manifested in the project alone.

In one of the FGDs we held to discuss the decline of the NGWP, Mr. Vafana declared that '*projekiti haifi yakamuka, mune rukonye, munoronga chinhu vamwe vanorongonyora*' [the project will never run again because there is a worm (a politician), some people plan and some un-plan]. However, according to at least three other project members, Mr. Vafana was the one who stoked up the conflict. Not only had he attempted to use the project as a base from which to have his lover elected as councillor, but he also consistently refused to hear the opinions of others who were not party leaders. As Mr. Chinotimba, a project committee member, claimed, Mr. Vafana often acted as if he knew everything and in the process crushed other people's contributions especially when members were discussing the possible resuscitation of the project. Mr. Chinotimba also claimed that Mr. Vafana thwarted all efforts at conflict resolution. He said:

> This man is a problem, he says others are problematic but we all know that he is the problem...you know if you do not take time to listen to the opinion and advice of your fellow project members, then what? We told him not to frustrate the AREX officer because we needed her in the project but no, they went ahead to intimidate and accuse her of controlling the project...look at us now, without her help the project has fallen flat on its face…If he had listened to some of the members to find peaceful ways of solving the problems. He used his position to influence other people to be confrontational with the AREX officer.[63]

[63] The problems with the AREX officer are discussed in detail in section 3.1 in this chapter

Instead of working together, some members rallied behind particular influential committee members when they incurred problems in the project. In line with this sentiment, one male project member said that:

> Some politically influential and well up people within the project advocated withdrawing from the project and they cited that local people did not have the resources to finance the collapsing project. On the other side the poorer members advocated for continuing in the NGWP and finding ways of resuscitating the project.

According to one female project member, the respective economic statuses of the project members divided them into two factions, with conflicting interests. And another female project member reported that members of the committee who were not party politicians were not very vocal because of their fear of the party politicians in the committee. These statements and the above quote show that there was a division in the project membership between the poorer and relatively wealthier members, and that there was an implication that that was linked respectively to non-membership and membership in ZANU PF local structures. Indeed it was divisions of this kind that resulted in the collapse of the wetland project as each sub-group pursued its own strategy.

The above quote also sheds lights into some of the reasons why the AREX officer left the project, an issue I discuss in greater detail in section 3.1 below. The AREX officer confirmed that the behaviour of members such as Mr. Vafana had resulted in her decision not to remain involved with the project.

A further constraint on the workings of the project committee was that four of its members also sat on various ward committees, a factor that limited the time and energy they could give to project related activities; and this resulted in poor project management. Their busy schedules involving local and district ruling-party activities severely limited their available time for project work.

For example, as shown in Chapter IV, the planning meeting scheduled for July 2006 was never held because the chairperson, a prominent local party politician, was never able to make himself available as he was always attending to party activities at both local and district levels; yet those positions gave him sufficient power to enable him to prevent other project committee members from proceeding without his participation. In addition, some members claimed, the project had collapsed because

committee members had been selected because of the other political offices that they held, rather than because of their capabilities and capacities to support and maintain the project itself. In these members' opinion, skilled master farmers should have been selected to lead the project rather than established local politicians.

I also observed how the role of local political processes disrupted other development projects in Mufiri. For example, during a tour of the fields of a University of Zimbabwe-run maize trial project that had begun in 2005, I observed a field for which some of the wetland committee politicians were responsible, and where the maize was not doing as well as in other fields in the trials. The AREX officer commented: 'Look at the field of the politicians; it is not doing well because they are always trying to see who is powerful, and in the end no one does the work in the field'.

The phenomenon of party political actors' direct participation in rural development processes raises many questions. By virtue of the leadership positions they occupy, they can access and come to dominate all the projects that are introduced into an area such as the ward. Even if they are not project committee members, they can gain access to the membership or beneficiary lists. For example in the MCG project, one of the committee members of the NGWP became a member of the project by virtue of his position in the local party structures. Meanwhile poorer members of the ward in most cases were sidelined. In Chapter VII I discuss in detail one case of a poorer farmer, Mr. Saguga, who complained of having been left out of most ward projects and who attributed his exclusion to his own lack of other resources.

The involvement of politically affiliated actors in development also reflects the fact that the implementation of development projects never occurs in a social vacuum. Always, the interests of the intended beneficiaries as well as of other local community members, the facilitators, the donors and any involved party political agents play a part in the political processes that are needed for the attainment of goals.

As I show in section 3 below, the perceptions and opinions of project members and of the AREX officer contributed to creating tension and ultimately conflict in the NGWP. According to Swartz (1968:2), when people come together with the purpose of achieving certain public goals, they bring with them 'repertories of resources, values and rules'. These resources can include knowledge, material wealth and

political power. The project members in the NGWP and the AREX officer had different power bases, and it is through power relations in the NGWP that disagreements and conflicting interests began to surface in the project.

The vice chairperson, Mr. Dube, spoke of how in the initial years of the project there had been subtle indications of social tension in the project. He traced the signs of social tension from 1998 to 2007 and in Table 10 below I present his recollection of the sources of tension and the signs of the presence of conflict in the NGWP.

Year	Source of Contention	Signs
1998	• Membership and selection of project committee members • Some members were not happy over the election of certain individuals • Some local farmers were not happy to be left out of the project	• Disgruntlement and gossiping among members and some non members
1999 –2000	• Role of AREX Officer • Project related work load • Distribution of harvested crops • Collection of maize samples for by AREX Officer for research purposes	• No direct confrontation • Numerous statements by members voicing their dissatisfaction among themselves.
2001 – 2002	• Community ownership and management of project	• More informal discussions among members about ownership and the role of AREX officer
2003 – 2004	• Role of AREX Officer in managing of the project	• Direct confrontation • AREX officer quits the project • Divisions among members • Resignation from the project by some members
2005 - 2007	Attempted resuscitation of the project and role of project committee	• Further decline in membership • Decline in project activities

Table 10: Recollections of social tension by Mr. Dube

Some of the points raised by Mr. Dube are discussed in further detail in the remainder of this chapter. People's recollections of what transpired give an outline of the development of social tension in the project.

3. Causes and manifestation of tension

During the initial stages of my fieldwork, wetland members and the AREX officer were unwilling to discuss the thorny issue of tensions in the NGWP. However, in informal discussions as the research progressed, some members hinted at tensions within the project. I identified those tensions after attending two wetland meetings

and noticing that the AREX officer was absent and was not mentioned by anyone there. I then started asking members about the AREX officer's absence and was told that there were 'issues' between the group and the officer. I then visited the officer at her home and subtly asked her why I had not seen her at the meetings. Her reply was simply 'I will come when I have time but not now…I have some unresolved issues that I cannot discuss now.' Her response indicated differences of opinion and possible conflicts of interest in the group.

At that time the reluctance of project members and the AREX officer to discuss the tensions between them was mainly because I was still relatively new in the area and people were afraid I might use the information when reporting what the members said about the AREX officer. At a later stage, however, the AREX officer began to talk openly to me about the tension saying 'I did not want to open that chapter of my work because I consider it closed; but since you have asked…yes there were problems and lack of cooperation at the wetland project and open confrontations with some of the members. I therefore decided that it was time to excuse myself from the project'.

After my discussion with the AREX officer some other members began to talk about tension and conflict in the project. A former wetland member, Mr. Charakupa, referred to the existence of the conflict saying

> Why do you think we left the project…people started exchanging words and accusing each other of stealing from the wetland…some said they were not happy about ownership of the project…It is a sad story but things just got out of control and the next thing the AREX officer walks away, members resign and I thought there is nothing to wait for...This is the end of the project; and look now, I was right.

In this section, I present views of the people involved as they articulated what occurred in the project and describe the conflict cited in the quotes above. Despite the existence of tension in the wetland during the period of its decline, ten members I interviewed spoke of the unity that had characterised the project in the initial years of implementation. According to one:

> We were united as a group and we worked well with the [AREX] officer and with Mr. Gumbo and Mr. Takura from Chiredzi Research Centre…Our goal was to see the project prosper and help us…trouble started later and the people started talking and causing a lot of problems.

In the initial phase, the presence of the research officers from Chiredzi, DRSS and AREX district office managed to override any internal division such as dissatisfaction

with selection of certain project members for project committee positions. It was reportedly only after these two external people left that disagreements, political tensions, conflict and controversies began to surface. From 2003 the concerns of most of the members grew and deepened, finally leading to the collapse of the project. Mrs. Chirawu, a former wetland member reported that

> Although as members we had different concerns about the project, all the members concurred over ownership of the project…Our question was, who owned and managed the project? Was it us via our project committee or the AREX officer...tension arose because we needed to seek clarification over the management of the project

I begin my discussion of the causes of tension in the NGWP by considering the role of the AREX officer.

3.1 Role of the Extension Officer: a source of discontent and conflict

In Zimbabwe, the role of agricultural extension services is intended to be 'essentially a two way link where extension service agents transfer knowledge and ideas to farmers and their families in an advisory role and by the same token extension agents should be receptive to farmers' ideas, suggestions and problems' (Pazvakavambwa et al 2006: 217). Yet the extension officer's role in the NGWP became a bone of contention among the different parties involved in the project. The AREX officer's original role was to train Mufiri farmers in the different farming practices and to assist them with queries or in areas they needed in their farming activities. However, with the implementation of the project she assumed more roles than those stipulated for an AREX officer's position. Her added role of running the project on a daily basis began to impact negatively on members' roles in running the project. This in turn had problematic implications for the project members' notions of community participation and ownership.

The NGWP was a large scale project and the planners had bestowed the management and operations functions of the project on to the AREX officer rather than onto the member farmers. Yet the farmers initially did not recognise the added management role of the AREX officer because, as vice chairperson Mr. Dube, commented:

> We thought that she was helping with planning and implementation of the project, something we welcomed because we were not knowledgeable about the project…However, problems started when we as members realised that she was overriding some of our decisions and even making decisions about the project without consulting us.

> We also started asking about who owned the project and what our role was including her role.

As the AREX officer increasingly managed the project by making unilateral decisions concerning it, this became a source of dissatisfaction among wetland members, who felt the project was their own and that they should have the prerogative to manage and make decisions on it. SDARMP, they said, had openly declared, at the project's inception, that the NGWP was a community project that would be owned by the members. Yet having the AREX officer in charge meant that there was a sense of double ownership and control of the project and this became a source of conflict. A local headman, Mr. Ponde explained that

> Do you know what it is to fight for power at all costs? ... That is what happened at the wetland project...I am not a member of that project but it was clear that the was a war for power especially between the AREX officer and some senior ZANU PF people who were part of the project…For example Mr. Vafana is a politically powerful person but when it came to the wetland he had to be led by our AREX officer…Right there, that is where problems began…People like Mr. Vafana tried to crush the power of the AREX officer over the project…These are my thoughts about the whole power drama at the wetland project…Some people want to exercise their power everywhere and in the end those differences destroyed the project.

The tensions between the AREX officer and Mr. Vafana were detrimental to the project in that their differences of opinion spilled over into the planning of NGWP activities. One member cited an incident that occurred in 1999 as project members shared the rice harvest. The AREX officer had insisted that some of the rice be left for use as seed in the next season. Mr. Vafana had disagreed and insisted that all the rice harvest be distributed and that the government would help the farmers secure inputs for the next season. In the end members had had to vote over the sharing of the rice harvest and Mr. Vafana lost in his bid to distribute all the rice.

As already shown in this chapter, some wetland project members were unhappy with the behaviour and actions of Mr. Vafana. Following my further probing of the headman he reported that, to the best of his knowledge, there was no pre existing tension between AREX officer and Mr. Vafana – implying that they arose directly from their respective claims to authority and attempts to exercise power in and over the NGWP. The headman reported that Mr. Vafana was a man who was motivated by the desire to rule and to be involved in all aspects of decision making in Mufiri Ward. In the end it was not just the AREX officer who was at fault but Mr. Vafana's efforts

to gain power through and in the NGWP that were equally if not more disruptive to the project than were hers.

Various project members also indicated that the tension between Mr. Vafana and the AREX officer was due solely to the management of the NGWP. Members concurred that despite the tension between the AREX officer and Mr. Vafana, all the members including Mr. Vafana were united when it came to their concerns about the distribution of wetland harvests, about ownership of the project and about the role of the AREX officer in managing the project. When dealing with problems concerning the NGWP, wetland members indicated that Mr. Vafana always took a radical and confrontational stance.

3.2 Samples and Gifts

Other causes of tension centred on the collection of research samples from the NGWP site and on the provision of gifts of NGWP produce to government officials who visited the project site. Various members told me that the AREX officer had often collected agricultural samples from the wetland, ostensibly for research purposes and almost always without having obtained the members' explicit permission to do so. Further comment was that when this became a regular practice on her part, all the members became angry and aggressively objected – but always led by Mr. Vafana.

According to Mrs. Mutsa, the AREX officer had collected such samples from the harvests each year and had sent them to DRSS for quality assessment. She added that in principle there was nothing wrong with that practice other than that the AREX officer did it without involving project members. Moreover, there was conflict over the quantity of the samples that were supposedly taken. According to the various members I interviewed, their understanding was that only a small amount of harvested crops, weighing about 100g or so, was supposed to be taken each year to the research centre. However, much to their surprise, much larger quantities were reportedly taken – some complained of quantities of the order of 50 to 100kg being taken.

During an emotionally charged FGD, both current and former members spoke angrily about the removal of these samples. Mr. Mhazi, a former member of the NGWP explained:

> It was always sample after sample being taken from the wetland project. What samples were they taking all the time (people nod in agreement)? People were now being like 'dogs' always walking around and constantly going to its owner's home (people laugh)…They would take 50kgs or even 100kgs and we were told they are for samples! What sample weighs 50kgs? There is no such thing (people laugh and nod in agreement)…What further annoyed us was that we were told that the samples would be returned to us; but never ever did we see any of the so called samples being returned to Mufiri (people nod and say yes in agreement). For all we know, those so-called samples were not even samples, they were not going to Harare or even Chiredzi.[64] We were not happy about the samples.

Another cause of disagreement was that the samples were not taken openly. Mrs. Chihera during the same FGD elaborated on the issue and reported that

> We would just see 'heads' moving in the wetland and we would ask ourselves what is happening in the wetland? It is not a wetland day, what are people doing there? After some time, some wetland members confessed that they had been called upon to collect samples (people laugh) and they were even paid to do so. Other members would not talk about it. Those who spoke about it even revealed that they were given small quantities of rice. We would be astonished and ask ourselves why already begin to distribute the yield before we have not officially begun to harvest the crops. There should have been more transparency and the collection of samples should have been discussed at our meetings so that we would know, as members, that samples were being taken. We could have organized duties for different people to collect samples and avoid unnecessary conflict but it was the same people who were always asked all the time to take samples privately. So it meant that some of us were nobodies… The truth is that this made people to 'talk' and exchange words.

Former members also highlighted the issue of the samples as one of the thorny issues that resulted in extreme dissatisfaction. One ex-member, Mrs. Mbada, noted that 'a long queue of people came to collect samples *(vanhu vesample vakaita bhande kusvika uko)*, some with even big lorries... so people were enraged by that'.

The quantities taken as samples and the explanation given by the AREX officer about the samples reportedly raised many questions among members, who said they had begun to feel that they were being cheated and robbed of their yields. As a result, I was told, members had started complaining and talking among themselves concerning the samples, and that too had led to conflict – both in relation to the AREX officer

[64] Harare refers to the Department of Research and Specialist Services whose offices were in Harare and by Chiredzi he was referring to the Chiredzi Research Centre located in Chiredzi.

and in relation to those members who were called upon to help collect such samples in exchange for some grain.

Closely linked to the sample saga was the allocation of wetland crops as 'gifts' to visitors to the project. According to various farmer members, this too was done without their knowledge or consent. Mrs. Manyati, a former member of the project commented, during an FGD:

> Anyone who came to the wetland was given crops from the wetland project by the leaders, [but] without our knowledge…Initially we did not know until one day some man who had visited started to thank the wetland members about the rice he had been given at the Area Meeting (people laugh for a long time). We were equally surprised and could not believe it (people laugh and nod) and this incident started to confirm some of the rumours that we were hearing about people being given crops from the wetland… As people who were working in the wetland, we were disappointed at how, when it came to work, we were involved but then left out during distribution time. All we wanted to hear was how crops were being distributed and not just to hear rumours; and yet we were the project members.

What the above shows is that some of the probably well-intentioned project activities carried out by the AREX officer, such as such as the collection of samples for research purposes, were not well received, at least by the 20 members I interviewed. It also points to concerns members had about the principle of accountability.

The project secretary, Mrs. Makoti, claimed that members cited a lack of accountability by the AREX officer as one of the causes of their dissatisfaction with the project management. Mrs. Makoti explained that members had claimed that the AREX officer had not accounted for all the harvested crops such as wheat, rice and maize. For example, they claimed, she had just taken and given crops to visitors who came to see the successful project without their permission, and would report only afterwards, but without saying what quantities were given away. Some members also had reservations about the purported visitors such as those from the AREX district office or DRSS. Their argument was that they had no proof that these visitors actually came from those government departments or had a right to be provided with such gifts or indeed samples, implying thereby that they were simply showing up, as friends and colleagues of the AREX officer, to be given food to take home. Such stories of lack of transparency and poor communication planted seeds of conflict amongst those involved with the project. It was in such contexts that members spoke

of the disappearance of rice that had been kept aside as seed for the next season, but had then vanished by the time it came to rice-planting time.

3.3 Distribution of crops

Both previous and current members of the NGWP complained repeatedly that the distribution of crops was another factor that had created tension in the project. Mrs. Sibanda, a committee member, commented that

> It was after harvesting that we began to have problems and seeds of divisions were planted. It was the committee and the AREX officer who started all these problems with lack of transparency and favouritism when they started selecting certain members to perform some tasks in the project, such as taking samples and going for field trips to other wetland sites outside the ward.

Mr. Mafukidze concurred, saying:

> Because of disagreements, we are no longer working together to achieve the goals we agreed to from the beginning of the project…When we had queries over wetland issues, we were told 'you want to see too much' and yet in a cooperative each member has his or her own rights in relation to the project…But when people begin to do things *kuseri kwetsoka dzevamwe* (behind other stakeholders' backs (), you infuriate the other members, thereby negatively affecting the operations of the project. There were a lot of questions concerning the project, especially the distribution of crops. There was no transparency…it was difficult to tell the exact kilograms of rice, wheat and maize we had harvested.

According to one committee member, the problem was not with the AREX officer unilaterally distributing crops, but with the extent of unofficial distributions of crops by the AREX officer in association with two other project committee members. One female project member reported that the AREX officer had her allies who supported and benefited from her role in the NGWP. For example her allies such as the two committee members would benefit during the unofficial distribution of crops by the AREX officer as they would also be given some rice or maize from the NGWP. This, according to that particular disenchanted committee member, created unnecessary tension that later erupted into open conflict.

Vice chairperson, Mr. Dube, explained that differences had surfaced in the project in 2002 when some members decided to confront the AREX officer during one project meeting. According to Mr. Dube:

> The discussion started on a good note but as the meeting progressed some members' contributions became outright accusations against the AREX officer. She responded by saying that she had been hearing the rumours in the ward about all those accusations and asked the members why they were not bringing it up during wetland meetings. As some members began to respond to her questions, the meeting became volatile as some members started yelling about ownership of the project...As the project committee, we tried to contain the people; but some members started shouting and walking away from the meeting. After that there was chaos as members resigned, some went to the AREX officer's house to discuss with her but it created more problems.

Both former and current members of the project concurred that the meeting described above was the first direct confrontation, but that it revealed years of simmering tension within the NGWP. Mr. Dube said that after this incident the AREX officer did not completely abandon the project but still offered her services, albeit from a distance.

Another source of disagreement related to the bank account that was opened in 1998 for the project. The value of the money deposited in 1999 and 2000 was eroded by the hyper-inflation that the country experienced in ensuing years (see Chapter I). Due to a lack of understanding of economic principles such as inflation, some members said that they did not understand why and how that money 'just disappeared'. As Mrs. Mutoko said

> Some crops were sold and the money was put in the bank; and our plan was to use that money to buy inputs for the next farming season. Now, as we approached the new season, we were told that the money had been swallowed by CABS (bank), and there was no longer any. *Vanhu vakabva vaora moyo* (People became disillusioned).

The above stories and shared memories reveal that the distribution of resources within the project was a source of conflict. Questions arose over the distribution of money that was generated from the sale of crops in the NGWP's early successful years. The NGWP case thus confirms Baronn et al's (2007:21) point when they say that 'development projects can cause conflict especially when they succeed'.

3.4 Favouritism

After the direct confrontation with the AREX officer, the remaining members agreed to change the management structure by abandoning the cooperative or communal arrangement and dividing members into small groups. The members were supposed

to work in their respective small groups but nonetheless to continue to report to the wetland committee. The harvest from the area worked by each such group was to be shared equally among members of the group. This was meant to reduce the conflict.

However, according to most members, and as shown below, the small group structure exacerbated the conflict that already existed between the members and the AREX officer. This was because members claimed that the groups were treated differentially in terms of allocations of inputs such as maize seed and especially fertilizer. Misunderstandings and allegations of favouritism arose over the allocation of fertilizer, as groups were given varying quantities. Mrs. Matata, an ex-wetland member explained that:

> When we finally adopted the group approach, problems started to arise especially over fertilizer. Some groups were given 10kgs per person and some groups 5kgs per person, and then some members did not get at all. They were told that the fertiliser was coming and eventually they were not given…Initially, we did not know that we were being given different fertilizer allocations. It was only when the maize had started growing that we started to notice the differences in the appearance of the maize. Some of the maize was green and healthy whereas some, like ours, was yellowish and not growing well. The maize spoke for itself…This is when people started talking about fertilizer and comparing allocations that they had been given and some realizing they had not been given fertilizer at all. People began to exchange words and some members' discontentment further divided the project.

Most members could not understand the differences as they had planted the same day, with the same maize seed, supposedly equal quantities of fertilizer, on the same land and with the same rainfall; so they attributed the differences they saw as the maize grew to what they discovered had been unequal allocations of fertilizer. However, the workers' committee chairperson insisted that some of the members were lying and that the reason for the difference was that some had come to plant their maize late when soil moisture levels had fallen. It was impossible for me to ascertain whose story was true as I was not around during the time these events occurred. But the point is that conflict within the project membership arose around allegations of unequal fertilizer allocations.

Besides the fertilizer problem, the group approach to managing the project membership also resulted in stories of favouritism taking centre stage and fuelling conflict. Favouritism reportedly occurred at two levels: The first was in respect of the

allocation of duties. Some members argue that the AREX officer favoured working with certain project members and, as a result, the 'neglected members' were unhappy. The second level was in the allocation of inputs like fertilizer. The AREX officer's alleged favourites benefited over the others and this caused those others to complain and raise questions and to demand that these issues be ironed out. As one committee member commented:

> The outsiders and government workers come and divide us. When you come and favour certain members, what will the others say? Such favouritism killed the project. If you take Mr. Z and work with him to the exclusion of others, what happens to the others?

Some members told me that the AREX officer had favoured the master farmers among the members because she usually worked with them on various farmer-training programmes.

Lack of transparency and stories of favouritism caused social tension within the project with some members feeling that they were not being treated fairly. Tension might have been avoided had all the members been involved in all activities and in all decisions pertaining to the NGWP.

3.5 Problems of draught power

Wealth differences among wetland project members became a subtle but vicious further factor in increasing conflict. After the withdrawal of donor support in 2001, members had to provide their own draught power to plough the wetland ridges and furrows. This meant using the cattle, ploughs, yokes and chains of those members who owned them. By virtue of owning cattle, some members began passing comments that some members claimed did not go well with other members who did not have cattle. According to Mrs. Magumbo, 'If a person who had cattle did not bring his or her own cattle, those who had brought cattle would ask why and say that their cattle were being overworked while some 'saved' their cattle from the hard work, *kunge tave kutakurirana kuti hauna kuuya ne mombe* (it was like we were now fighting over why one did not bring any cattle for use in the project).

A consequence was friction between those who owned cattle and those who did not, to the extent that some members with cattle eventually left the project because of conflict over the use of their cattle. As one female member said 'those who owned

cattle passed sarcastic comments over the use of their cattle. This resulted in those without [their own cattle] refusing to use borrowed cattle and ploughing equipment.

3.6 Problems associated with low harvest

The manifestations of conflict described above coincided with years 2003 to 2005 when Mufiri ward experienced severe drought along with much of the rest of Zimbabwe. Members argued that they were no longer happy with the wetland harvest which was very low in comparison to the initial years. Dissatisfied members blamed low yields on management's small group approach, its poor planning and the tensions that had arisen amongst wetland project members. The low yields further deepened the existing conflicts within the project. As one male project member related:

> As the years went by, the harvest became less and less. There was a decrease in the individual allocations…The bags of maize were no more. The wetland used to 'pay' in terms of food security. Members were not happy to break their backs just for 5kgs…Even the husbands of women members started complaining and asking why their women should come to a non-productive wetland project instead of putting their energy in the dry land farms. What was 20 or 10kgs of maize in comparison to the dry land farm harvest? It was better for their wives to quit the project.

Yields no longer matched the value as people saw it of their investments of labour and seeds. One member commented that 'the truth was that we put in a lot of labour into ploughing, planting and weeding and then the yields were very low and this created problems'.

3.7 Conflicting stories of storage space

The storage of wetland crops was a further source of disagreement. Members claimed that the project had never had its own storage space. SDARMP, they said, had promised to build a storehouse and the members had even moulded bricks for the purpose; but the donors had left without overseeing the building of such a storehouse. This resulted, as described earlier, in wetland crops being kept at individual storage places called *matura* – an Nguni derivative meaning 'offloading' but here implying improvised storage place. This too created much controversy amongst members who argued that they could not trust those project members who were, from my perspective, generously providing space for storing the project's harvested crops at their homes. But, as Mr. Dube said, 'A person could not be sure that the crops were

'secure' at one member's place'. Consequently, those who had offered to store wetland crops in their barns argued that people were always suspicious of them, accusing them of stealing from the project.

A particularly serious event that fuelled disputes was the disappearance, in 2002, of the harvested wheat crop from the local shop where it was being stored. The story was narrated by Mrs. Shava, an ex wetland member:

> After harvesting our wheat crop, we were each given 50kgs and the rest was stored at the council premises at the shops. Up to now we do not know where our wheat went to. *Yakatsakatikira ipapo* (It just disappeared from there). This was the final blow. We were told it was stolen but there were so many stories about that wheat…After SDARMP withdrew their funding, we were never clear about how things were being handled. We were not happy about the state of affairs and the way the project was being run. We were not satisfied at all.

Most members we interviewed at some point included mention of the wheat loss incident as the one that had fuelled to breaking point the anger among members who were already annoyed with and discontented about the project management. Indeed, Mrs. Sibanda put the conflict surrounding the distribution of wetland harvest, down to 'greed'.

4. AREX Officer: Response to Tension & Accusations

To get a balanced view of the tension and accusations that were being levelled against the AREX officer, I decided to ask her to shed light on her role in the NGWP during the apparent successful years and during the subsequent period of decline. In an in-depth interview, she said that her role in the wetland project had been to provide extension services only. Initially, she evaded any discussion of tension over her management role but later, after some subtle probing on my part, she explained that the wetland project members had not been happy about the benefits she had received through her participation in the NGWP. She said she was aware that various members were unhappy with the trip she was granted by the Ministry of Agriculture and Rural Development to visit Australia, and with the national award that she had received and the cash grant of $Z100 000 (US$ 2 632) and the prize of $Z50 000 (US$1 315) that

she received with each respectively.[65] The members were aware that she had received these sums since they were present at the national field day that was held at the project site where they were announced.

As my interview with the AREX officer progressed, she became increasingly emotional as she began acknowledging the wetland members' accusations. She began to speak of how she had worked very hard, day and night she said, and yet some members became unappreciative and arrogant, and accused her of being too controlling and taking harvested crops from the wetland without their knowledge. Finally, she admitted:

> That is the reason I am not attending any of the wetland activities…After all I did for the project and they accuse me of all sorts of stories…there is conflict, *kusawirirana*,(not getting along) and that is the reason I eventually stopped going to the wetland. I decided that I did not have to put up with the numerous rumours I heard that were coming from the wetland…some of the members were never content with anything…they were always pointing fingers and trying to blame me for things that went wrong in the project…After the first confrontation at one of the wetland meetings, I still helped at the wetland but later decided that it was no longer conducive for me to work with them.

She also acknowledged that the project had required that she stretch her work beyond her role as an extension officer because, after the implementation phase, the researchers from Chiredzi had left and she was left alone with the farmers who looked up to her for everything. She commented:

> I found myself helping with day to day managing of the project, writing reports, sourcing inputs and also offering extension advice to the farmers…Most of the farmers were clueless about how the *Ngwarati* worked and when and how to plant rice and wheat. I tried my best to make sure that all was running smoothly…but they had a problem with how I was helping to ensure that the project remained on track…On my part I was answerable to the AREX district office…the project came through our office.

The interview ended with the AREX officer arguing that she was just doing her job in the NGWP but that it seemed some members were unhappy, especially about her domination of the decision-making processes in the project. The lack of clarity regarding her responsibilities as AREX officer in the project, and regarding the role of members in decision-making, had, she said, become a point of contention that

[65] The year 2000 foreign exchange rate for the US$ and the Zimbabwean dollar. Available at http://en.wikipedia.org/wiki/Economy _of _ Zimbabwe (accessed on 7 April 2008).

resulted in conflicting interests. As a result, she added, she had joined a number of members in withdrawing from the project.

With her help, I analysed details about which members had withdrawn and which had remained. Table 11 shows summarized profiles of the former members and present day members of the NGWP at the time of my fieldwork.

Membership Category	**Profile**	**Additional Information**
28 Members	• Project Committee: Four ZANU PF politicians (Mr. Vafana, Mr. Dube, Mr. Samukange and Mr. Chiko) & Mrs. Sibanda involved in the WADCO • Mrs. Mutsa: wife of Ward Councillor (2004 -7) • Mrs. Matohwe: wife of local headman • Mrs. Chihera : strong ZANU PF supporter • Mrs. Mataka: New ward councillor as of 2007 • Mrs. Mate: Candidate who lost in elections for a new councillor in 2007 • Two men and one woman members of village assemblies 15 members with no strong political party or local government linkages	13 of the remaining members were involved directly with party politics and local government structures in Mufiri.
Former members	• 3 headmen • 4 members of VIDCOs • 43 members did not hold posts in any of the local party politics or local government structures	

Table 11: Profile of members' political and local government linkages

The above shows that the majority of project members who were party-politically linked remained members of the project while it was the less party-politically inclined project members who withdrew. According to the AREX officer's expressed perceptions, this was because the majority of members had not felt comfortable with the political interference that had marked the project and they thus opted to resign rather than be involved in local level politics through the NGWP.

Contrasting with the AREX officer's explanations, however, were those of 20 wetland members who expressed different views and perceptions about the tensions and differences. During an FGD, project committee members such as Mr. Vafana and Mr. Dube – both very active in local politics –claimed that, when the project had started, the role of the AREX officer had never been made clear and that that had been at the base of the problems leading to members withdrawing. They were neither informed of her terms of reference nor of the extent of her authority. Mr. Dube

suggested that it would have been better had a training workshop been held to inform members about the structure and operations of the project.

Yet other members such as Mrs. Makoti said that the problems arose because the AREX officer increasingly became autocratic, 'commanding and harassing us and making us work very hard'. They maintained that, as adults, they knew when to work and rest, but had been over-ruled by the AREX officer and her instructions. Moreover, three male project members that I interviewed said that they had felt uncomfortable being given orders by a woman, Mr. Mashura claiming that she had 'pushed them around like small children'. Mrs. Makoti said that since it was their project, they had wanted, and should have been able to manage the project or to have a major say in decision-making, but had been precluded from doing that by the AREX officer's autocratic style.

According to Mr. Vafana, the NGWP chairperson, after the initial confrontation with the AREX officer the members divided into two factions. The first was the pro-Vafana faction that took a radical approach in dealing with the AREX officer with the aim of obtaining total control of the project. The second was the pro-Dube faction – supporting the vice chairperson – who wanted the conflict with the AREX officer to be resolved so that she could continue to work with them. Indeed, after the confrontations with the AREX officer, the pro-Dube faction had attempted to reach a point of conciliation, but without success.

When I asked her about the failed reconciliation efforts, the AREX officer responded that, by then, she had lost interest in the wetland because of the accusations levelled against her and had, from 2005, decided not to attend any further wetland activities. She claimed to have been hurt by the rumours and accusations levelled against her by the members.

The AREX officer's absence from the project was evident during my entire 16 month fieldwork period. She did not participate in any of the wetland activities and assigned an agricultural student, who was doing her attachment, to work with the project members. The student was mainly an observer when we attended wetland activities in 2006 and confessed to me that 'the officer asked me to work with the project members but I have no idea what I am supposed to do…the whole *Ngwarati* thing is

new to me…I will help where I can but will mostly observe and learn from the farmers'.

I also observed that the AREX officer avoided working on their own fields with farmers who had been involved in the NGWP. In 2007, she invited me on a field tour which had been organised by University of Zimbabwe lecturers who were running maize and fertiliser trials in Mufiri. During that tour of various fields in Mufiri I noticed that the majority of the farmers involved were not associated with the NGWP, other that is than the four political activists on the NGWP committee.

The tour entailed visiting all the dry land farms of the various farming clubs that had participated in the UZ maize trials in Mufiri. Farmers from the ward's 34 villages had been encouraged to join a farmers' club in their village and these clubs as a whole formed the Area Farming Association. As the tour progressed, I realised that the AREX officer had avoided choosing farmers in the villages close to the NGWP site which was where most of the wetland project members lived. She had carefully selected farmers from outlying villages, farmers who had not been involved in the NGWP. Given the social tension and conflict that has arisen in the NGWP, I concluded that she was avoiding a repeat of the problems she had encountered in the NGWP. Yet, despite the AREX officer's careful selection of farmers for projects, she could not totally avoid farmers such as Mr. Vafana who, due to their political standing always managed – if they wished – to gain access to new projects. In such cases she avoided working directly with the NGWP members in the new projects.

During my numerous visits to her home, which doubled as her office, I also noticed her hesitance to interact with NGWP members who came to visit her to discuss other ward issues or to obtain advice for their own fields. I also observed that, when the NGWP was mentioned at the Area Farming Association meetings which she regularly attended, she avoided providing input into the discussions.

That said, it was notable that the project committee never approached the AREX officer for extension advice concerning the NGWP, even when they were not sure of how to proceed, such as when they were confused about wheat planting dates. These actions, both of the AREX officer and of the project committee, were a testimony to

the persisting existence of tension in and around the NGWP, particularly – but not only – relating to the AREX officer.

In 2007, an opportunity arose for me to further probe the lack of extension services at the NGWP when I was at a workshop that I attended in Kadoma that focused on water management. One of the workshop organisers was one of the researchers from DRSS who had been instrumental in developing the *Ngwarati* technology. He averred that the withdrawal of the AREX officer was a major setback for the project as, he said, extension services were crucial for the sustainability of such a project. He added that the extension officer was crucial in linking members with departments such as DRSS and AREX for inputs and for technical expertise. In addition, he said, the tensions between the officer and the project members had broken that crucial link and in a way had contributed to the collapse of the project.

Project members too believed that the AREX officer's persistent absence had negatively affected the project's operations and activities; and, by the time I was in doing my research, the majority of the members expressed regret over how they had dealt with their differences over her role in the project. As has been shown in this section, the role of the AREX officer was a cause of tension which led to conflict which ultimately resulted in her own withdrawal from the project, a move that in turn contributed to the disintegration of the NGWP. Yet, even though they accused her of having been disruptive, they also recognised how essential her work was. The tension and ensuing political processes played a significant role in the project's collapse.

5. Conclusion: The Effect of Tension in the NGWP

As a result of the tensions outlined above, numerous accusations and rumours began to circulate among project members and in the rest of Mufiri Ward. The AREX officer indicated that she had heard a lot of the accusations and rumours from ward residents and project members and that, after 2004, there had been a steady decline in project membership as members gradually downed their tools and left the project. The members simply stopped participating in project activities.

As indicated in Table 3, by 2006, 50 (64 percent) of the original set of 78 members had quit the NGWP, and by a year later another eight had withdrawn. All 20 former

members I interviewed, claimed that the project had faced too many problems so they had therefore decided to quit and focus on their dry land farms. They were angered by the lack of transparency and accountability concerning the harvested crops. They were unhappy too that they had provided all the labour but did not have full ownership of the harvested crops. They quit the project in protest. Tension in the NGWP had also led to some members concentrating their energies in alternative projects like the Mufiri Consolidated Gardens[66] (MCG) in order to ensure food security in their homes. Tension also strained pre-existing social relationships and those that had been created during the initial phases of the project.

According to Swartz (1968:18), when there is conflict 'there is a momentous juncture or turning point in the relations between components of a political field'. As regards the NGWP, it would appear, this turning point occurred in 2004 when members started showing their dissatisfaction and openly challenged the AREX officer. For example, the AREX officer said that, after the rumours and accusations, she found it difficult to relate to the same people although she tried to continue working with all the farmers in the ward.

Baronn et al (2007) have shown in their study in Indonesia that a local conflict within a development project can 'influence the relationships between different groups or lead to behavioural changes'. After 2004, some of the relationships, especially those between the AREX officer and project members, suffered significant change and were never thereafter able to recover; as a result the project declined and eventually collapsed.

Lack of communication also proved disastrous for the NGWP. The vice chairperson of the NGWP said that, after 2004, there had never been a platform to discuss the claims, accusations and problems in the project. When disagreements surfaced, the committee and some members hastily asked the AREX officer to withdraw from the NGWP, but without formally discussing their discontent over her role in the project. Members' complaints were never clearly communicated to the project's management nor dealt with in a systematic manner. Members and the different factions merely discussed their gripes informally among themselves. Lack of communication of areas

[66] A project introduced by donors after the NGWP. The MCG is discussed in Chapters IV and VII.

of discontent led to the deepening of the crisis and eventually conflict among group members and with the AREX officer.

The ethnographic evidence presented in this chapter suggests that local political processes and social tensions contributed significantly to the failure of the NGWP. The particularities of the social context presented a set of internal social dynamics that led to the project's eventual collapse. Yet these internal processes were themselves closely linked to various external factors that had also been influential in the collapse of the project. As social tension between project members and the AREX officer grew, and as tension among the members themselves also grew, the significance of local level politics within the project became ever more apparent, providing evidence, yet again, of how local level politics can negatively impact on a well intentioned but sociologically poorly conceptualised and badly implemented development project.

Other studies in Zimbabwe have also shown that 'conflict is a common feature' in projects that have common property resources. As Samakande et al (2000:2) point out, such conflicts often 'stem from resource allocation'. The introduction of new projects have also been shown to lead to conflict because they 'can generate tension, given that they provide new resources and decision-making mechanisms which may be used to either strengthen, or modify or undermine existing local power relations' (Baronn et al 2007: 7).

As shown in this chapter, development is a political process and problems within development intervention projects can and do emanate from beneficiaries' self-interested actions and not only from those of planners and funders, as argued by most post development critiques such as Escobar (1995). Potentially good projects like the NGWP appeared to have been can and do become embroiled in local politics with the result being conflicts that work against the intended goals of ensuring food security and improving people's livelihoods. Such political processes in the NGWP undermined its potential and technical promises as a development project and led to its eventual collapse. Yet, as I demonstrate in the following chapters, it left a legacy that was not altogether negative.

VI: INFORMAL WETLANDS: TECHNOLOGY TRANSFER FROM THE NGWP

> But it may be that what is important about a "development" project is not so much what it fails to do but what it does do; it may be that its real importance in the end lies in the "side effects" (Ferguson 1990:254).

1. Introduction

Ferguson's (1990) argument cited in the epigram above was that the side effects of development projects tend to be negative for those who are intended to be served by it. The present chapter suggests that at least some of it may be positive too. In the previous chapters I have explored the effect of the NGWP on the lives of local people in terms of food security, income generation and acquisition of skills and knowledge. I have also described the disintegration of the project and the role of local politics in that process. In this chapter I show how some project members began to adopt the *Ngwarati* technology in the informal wetlands during the project's disintegration period; and I discuss how the farmers grappled with labour shortages as they adopted the technology.

Technology transfer presented a new dimension to the NGWP, after the collapse of the project, which lay idle a few kilometres from people's own informal wetlands. During fieldwork I began to see that although the wetland project was collapsing it had provided some positive spin offs for local farmers who had quickly adapted the technology and associated skills to their wetland and dry land farms. I will discuss technology transfer onto dry land farms in detail in Chapter VII. Here I concentrate on its transfer to informal wetlands.

As I explored the success stories of technology transfer, I began to question certain post development critiques. I also began to think about Ferguson's (1990) comment above, that the real importance of the project might lie in its effects. In this chapter I explore in detail some of the more positive side effects of the NGWP.

As mentioned in Chapter II, I learnt about the unintended effects of the NGWP through informal discussions. During the time I was concentrating my attentions on the NGWP, I was approached by one farmer who asked, 'Are you not interested in

the informal wetlands? ... You should come and see how some of the farmers have taken the concept of the ridges and furrows and applied it in the informal wetlands'. Those words definitely captured my attention and I quickly arranged a short visit to Mazorodze and Zambezi villages, and invited the wetland project's vice chairperson to accompany us. On arrival at one of the informal wetland farms, I was amazed at what I saw and stood speechless. Before me was the NGWP on a small scale (see picture 24) and, in addition, this wetland was at its peak with a variety of abundant crops and vegetables growing from the ridges and furrows. This was an utterly different scene from the NGWP site which lay a mere two to three kilometres from the informal wetland.

Picture 24: The Moyo wetland with sweet cabbage, onion and tomatoes growing in the garden.

2. Technology transfer: Positive spin offs

Informal wetlands in Mufiri are scattered across the ward but are more dominant on the western side where various waterways and the Musavezana River run through. However, only a few villagers have access to these pieces of land. From my observations, an informal wetland, for those households that had access to one, comprised a small garden ranging from 0.4 to 2 hectare and an open well used to irrigate crops when moisture levels in the wetland were low. The wetland gardens

were mainly used to grow vegetables although in some seasons, maize, rice or wheat could be grown. Those farmers who had access to wetlands either kept them as one wetland area for growing maize or rice or else divided the wetland area into a garden and field. Such wetland fields generally are planted with maize and rice in an area adjacent to the small wetland garden planted with vegetables. Most farmers in Mufiri kept a small portion of the land surrounding their homes as a vegetable garden, with dry land farmers using the garden for vegetables during the rainy season and letting it lie fallow during the dry season, and informal wetland farmers using their high-moisture content gardens throughout the whole year.

The use of such wetlands in Mufiri dates back to the colonial period when people settled in the area. All Mufiri's households had been allocated rain fed farms while a few lucky families, according to the sub-chief, were also allocated wetland areas as part of their land allocations for household use. The sub-chief also pointed out that, before the adoption of the *Ngwarati* technology, informal wetland fields and garden were used in their existing state, simply as high moisture content fields. Thus previously, no innovations or special wetland technologies were used on these wetlands even though they were recognised for being particularly productive and cultivable all year round and even though crops such as rice were grown on them. However, he added, subsequent to the introduction of the *Ngwarati* technology, farmers had begun to actively landscape their wetlands by creating ridges and furrows of a kind they observed in the NGWP.

Below I present data from my four case studies with informal wetlands. I do so to show the different aspects of the *Ngwarati* technology that they adopted. Of the four, only one had a member that had participated in the NGWP. He was Mr. Moyo,[67] and he was the first amongst the ward's wetland farmers to adopt the NGWP technology he had learned from the project and now put to use in his own informal wetland. The other three households in my informal wetland case studies sample began to adopt the technology after seeing Mr. Moyo's successes and his increased productivity levels from his wetland farm.

[67] Mr. Moyo died in May 2008 after I had completed my field work. His wife continued to work in the wetland garden.

Case Study 5: Pioneers of *Ngwarati* technology transfer

The Moyo wetland garden measured about 0.6 hectares and was an example of successful technology transfer of the *Ngwarati* tillage system. Mr. and Mrs. Moyo were credited with being pioneers of the technology in informal wetlands. The Moyo family was originally from Zvishavane and of the *moyo* (heart) totem. Mr. Moyo's father had settled in Mufiri in 1950, in Mupanduki village, but in 1968 the family moved to Mazorodze village where Mr. Moyo settled. Mr. Moyo's father passed away in 1984 and his two brothers died in 2003. Mr. Moyo was born in 1953 and had three children. Two of his children were from a first marriage that had ended in divorce and the third was from his then present wife whom he had married in 2004. When we started fieldwork, that wife was at the Zvamavande hospital and returned after a month with the new baby boy. As a young man Mr. Moyo had worked as a general worker at the Bulawayo Central Hospital in Bulawayo. In 1995, aged 42, he returned to Mufiri and took up full time farming.

Mr. Moyo was one of the key members of the NGWP, having been involved in the initial surveying and pegging of the wetland. He was also involved in the construction of the broad ridges and furrows and it is the knowledge he acquired during this initial phase that he was able to apply to his own wetland garden. During the time of our fieldwork, he was no longer an active member of the project – he had withdrawn in 2002 because of conflict in the NGWP. Together with his wife, he was now devoting most of his time to their informal wetland garden, applying the moisture conservation techniques he had learnt from the project. His mother, however, was still an active member of the NGWP and she participated in the harvesting of wetland crops described in Chapter IV. She had also provided some of the vegetables used for the combined lunch during that harvest.[68]

The Moyo family has been involved in wetland agriculture since 1968 when they settled in Mazorodze village, although without the benefits of *Ngwarati* technology. After my second tour of his wetland garden, Mr. Moyo told me about how he had come to adapt the *Ngwarati* technology tillage system to his wetland garden:

> After working in the wetland project and closely observing various aspects of the ridges and furrows, I decided to apply the same concept

[68] The vegetables were taken from Mr. Moyo's wetland garden. She later told me about it during one of my numerous visits to Mr. Moyo's home. Mr. Moyo's mother stayed in the Mazorodze village about 0.5 kilometres from Mr. Moyo's homestead.

> of the ridges and furrows to this wetland…. I found the whole ridges and furrows of the *Ngwarati* interesting… It was like an experiment and I wanted to see whether it would work or not. My problem was that I did not have the caterpillars and tractors we used in the wetland project and so I had to depend on my own manual labour …. The construction of the ridges and furrows was very difficult and it required a lot of labour … Initially I had set out to use one hectare for my wetland 'project' but after assessing the labour needed, I ended up only using about 0.6 hectares. I started by slowly constructing ridges and furrows in my wetland garden … I devoted most of my time to this new project and have never looked back since then …It took me around 6 months to construct the small ridges and furrows and another three months to put a very traditional fence made of tree branches around the wetland to prevent goats and cattle from grazing in my garden.

Picture 25: Broad ridges and broad furrows in Mr. Moyo's wetland garden.

The ridges and furrows in Mr. Moyo's garden were not of the same measurements as in the wetland project; his ridges and furrows were smaller but used the same concepts of alternating ridges and furrows as in the NGWP. Mr. Moyo grew a variety of vegetables and crops in this garden throughout the seasons, supplying his family with a variety of crops other families did not have. We observed crops such as carrots, potatoes, peas, onion, beans, sweet cabbage, English rape, tomatoes, local *'covo'* leafy vegetable, wheat, maize and rice being planted and harvested there. He also had a number of fruit trees that included bananas, mangoes, guavas, lemons and sugar cane.

An important and interesting aspect of Mr. Moyo's garden was the changes that occurred in his wetland across the different seasons. In one season it was a vegetable garden with all sorts of vegetables being grown while, during the rainy season, it was totally transformed into a field and all one could see there was the maize and rice crop respectively on the ridges and in the furrows.

The Moyo wetland garden thus provides evidence of how aspects of the NGWP were successfully transferred to informal wetlands. Pictures 26 and 27 show the Moyo wetland using the *Ngwarati* technology and the changes that occurred as the seasons changed. These pictures were taken from the same spot of the garden in two different seasons.

Picture 26 and 27: Mr. Moyo's garden showing the seasonal changes that occurred during two seasons in 2006 and 2007.

Picture 27 shows another important aspect of technology transfer from the NGWP to the informal wetlands. Throughout the time of my fieldwork, no rice at all was grown in the NGWP yet, in the informal wetlands, both rice and maize were grown using the *Ngwarati* technology. Indeed, Mr. Moyo reported that, since 2003 when he had adopted the *Ngwarati* technology and implemented in his own informal wetland, he had witnessed an increase in the garden's yields to the extent that he was able to sell significantly more vegetables. Table 12 below shows his estimated annual cash income from sales of vegetables from the garden from 2001 to 2006. The years 2001

to 2002 were before he adopted the technology and the years 2003 to 2006 were after he had adopted the technology.

Year	US$
2001	50
2002	62
2003	150
2004	350
2005	450
2006	510

Table 12: Cash income reportedly generated from wetland garden vegetable sales

Mr. Moyo recalled that in 2005 he had had a particularly good tomato harvest and had managed to sell most of it in Shurugwi town. He would wake, with his wife's help, would pack tomatoes in boxes, would then walk to the bus stop and board a bus to Shurugwi town. On arrival, he would go to the local vegetable market and sell in bulk to the market owners. Mr. Moyo said that sometimes his tomatoes were sold off in less than 20 minutes and he would travel back to Mufiri. He recalled that in 2005 he earned US$170 alone from tomato sales.

On several occasions we also observed Mrs. Moyo supplying vegetables to teachers at the local primary and secondary schools. Local villagers also came to buy from the wetland garden and people from as far as Shurugwi town came to buy sugar cane and vegetables from Mr. Moyo. He commented that

> Ever since I adopted the ridges and furrows, I saw an increase in our yields ... it is a lot of work but it pays ... we have a variety of crops growing on the ridges and furrows and as a result we have more crops to sell … For example the teachers like potatoes, carrots, beans and peas and so I grow them and I know I have a market … sometimes we are not able to meet the demand…This garden has proved to be my pension (laughs) and I hope it will continue to look after us … Other families are now asking me to help them with the ridges and furrows because they have seen what we have been producing in the garden.

Indeed during field work I observed Mr. Moyo helping other informal wetland farmers to construct ridges and furrows in their wetland farms. Mr. Moto reported that he was helping the other informal wetland farmers free of charge. He did not expect anything in return because, he said, if in future he needed help, he could rely on them to help him.

The next case study offers an example of a household that was assisted by Mr. Moyo to adopt the *Ngwarati* technology. The case study of Mr. Moyo's household is a good illustration of technology transfer from the NGWP to the informal wetlands and the benefits that were accruing to households that had made such a technology transfer, at least in terms of their income generation. Case study 6, about the Maziva family's wetland garden, exemplifies other informal wetland farmers who adopted the *Ngwarati* technology to boost productivity in their wetland gardens.

Case Study 6: Following the footsteps of technology transfer

As noted above, after the success of Mr. Moyo's garden, other informal wetland farmers decided to 'experiment' with the *Ngwarati* technology to boost their own production levels and hopefully thereby to attain some degree of food security for their families. The Mazivas were one such family. Mr. and Mrs. Maziva were of the *shumba* totem and were Seventh Day Adventists. They had married in 2003 after Mr. Maziva had divorced his first wife. Mrs. Maziva was also a divorcee and both had children from their former marriages. Before her marriage to Mr. Maziva, she had lived in Mupanduki village in Mufiri. They now lived with Mrs. Maziva's son (the focus of case study 10) and grandchild in Mufiri's Mazorodze village.

Mr. Maziva's father, who was born in Shurugwi district in the Shamba area, had migrated to Mufiri in 1968. He was allocated 2.5 hectares of land in Mazorodze village, land that Mr. Maziva inherited after his father's 1977 death. The land included the wetland garden.

Mr. Maziva had concentrated on farming activities since 1978, including various wetland activities throughout the year. Mr. Maziva acknowledged that he had not paid much attention to the wetland garden until he had married Mrs. Maziva who began to resuscitate it. Mrs. Maziva attributed her interest in wetland farming to her maternal grandmother from Chirumanzu[69] who had had a wetland field there. Growing up they had assisted her in the various wetland activities such as growing vegetables and maize. According to Mr. Maziva:

> My family has been involved in wetland agriculture since my father moved to Mufiri Area… After I married my current wife we began to concentrate on our wetland garden. Our neighbour, Mr. Moyo,

[69] A district in Masvingo Province in Zimbabwe that lies 150km north of Mufiri Ward.

> introduced ridges and furrows in his garden and we began to see the benefits of using these ridges. After observing his garden and discussing with my wife, we decided to ask him to come, show us, and explain about the *Ngwarati* ridges and furrows… He came and discussed with us and we decided to 'experiment' but not with the whole wetland field. With Mr. Moyo's help we constructed ridges and furrows for only half of our wetland garden … We have since observed that the half of the wetland that has ridges and furrows produces more crops than the other half…. So this year we are going to construct ridges and furrows on the remaining half. It is a lot of hard work but the rewards are encouraging.

By the time I had finished my fieldwork, Mr. and Mrs. Maziva had constructed ridges and furrows in their entire wetland, completing the task over a period of five months. They did not hire any labour but used their own manual labour and hand tools such as hoes, picks and spades. Construction of ridges and furrows was done during their usual morning sessions in the wetland garden. Occasionally Mr. Moyo came to observe and give further advice on the construction of the ridges and furrows.

As if to emphasise the benefits that accrued from adopting the *Ngwarati* technology Mrs. Maziva declared:

> Look at us! We eat well because we grow many crops and we never go hungry. …Constructing the ridges and furrows and also maintaining them is a lot of hard work but it ensures that we have food in our homes. We have fruits, vegetables, rice, wheat and maize growing in these wetlands.

The couple requested that I take the photo below and present it in my work to show how healthy they were because of the variety of foodstuffs they produced.

Picture 28: Mr. and Mrs. Maziva with their grandchild eating guava fruits from wetland garden

Mr. Maziva attributed the variety of the crops they were now growing to their adoption of the *Ngwarati* technology techniques. Meanwhile, Mrs. Maziva pointed out that the fruit trees such as the guava trees that they planted in the wetland garden produced more fruit than those they had planted in their nearby area of dry land. Table 13 below gives a summary of the crops they have grown in the wetland garden before and after their implementation of the *Ngwarati* technology.

Crops Grown Before and After Adoption of *Ngwarati* Technology	
Year	**Crops**
2000 -2003 *(Before)*	• Maize • Kale vegetables • Sugar cane
2003 – 2007 *(After)*	• Wheat • Rice • Tomatoes • Beans • Onions • Kale vegetables • Maize • Sugarcanes • Bananas • Cabbage

Table 13 showing the variety of crops grown after implementation of the Ngwarati associated technologies by the Maziva household.

Table 14 below gives a summary of the total harvests for maize, rice and wheat for the Maziva household from their wetland from 2003 to 2007.

Harvested Crops (Tonnes)			
Year	**Maize**	**Rice**	**Wheat**
2003	0.340	0.020	0
2004	0.415	0.095	0.052
2005	0.382	0.130	0.074
2006	0.505	0.160	0.105
2007	0.490	0.148	0.100

Table 14 showing harvested crops for the Maziva household

This case shows the trickle-down effect of the techniques from the NGWP. Not only did members of the NGWP such as Mr. Moyo (case study 5) adopt these techniques but even non members such as the Maziva family did so, and managed significantly to increase the variety and yields of crops they were growing in their wetland. This also meant they gained access to a more nutritious and wider range of food stuffs than they had done previously, and for longer periods of the year too. It also increased the

labour demands on them to work the lands right through the year, and more intensively than previously; but, as they pointed out, meeting those demands was well worth the effort.

Case Study 7: Use of water reservoirs for 'evergreen gardens'

Picture 29 and 30: Water reservoirs in wetland gardens

As already shown in Chapter I, the *Ngwarati* technology design allows for some of the water flowing through the constructed furrows to collect in a small constructed catchment pit that acts as a water reservoir in the wetland. Such water is intended to help with moisture levels in the wetland and can also be used to water vegetables. NGWP members reported that in the initial years they had grown vegetables in the project wetland and used water from the catchment pit to water those vegetables. Following this concept, some informal wetland farmers such as Mr. Mangwiro[70] had dug catchment pits reservoirs in their wetland gardens to help supply water for their vegetables.

Mr. Mangwiro was originally from Chirumhanzu district but had moved to Mufiri with his father in 1945, after the death of his paternal grandparents. They were of the *mhaz*i totem and of the John Masowe church. After the death of his parents in 1980, Mr. Mangwiro inherited the land. He was married and had seven children, one of them a daughter, Gloria (the focus of case study 9). Mrs. Mangwiro was from Matebeleland province and was a Ndebele. She always wanted that distinction to be known, since the majority of people in Mufiri were Shona. When we started

[70] Mr. Mangwiro died in 2007.

fieldwork, it was Mrs. Mangwiro who was often sick and would recover only after seeking treatment from the local clinic. Mr. Mangwiro was healthy and spoke of his wife being unwell but in September 2006 Mr. Mangwiro fell sick with diarrhoea, started to deteriorate quickly, became bed ridden and passed away in June 2007.

During my first interview with Mr. Mangwiro, he spoke of how his inherited wetland field had proved a reliable food source for his family even before his father had died. Before adopting aspects of the *Ngwarati* technology, the household had been planting mainly maize in the wetland and some vegetables. No special technology or innovative techniques had been applied to the wetland although, unlike in dryland farms, they were able to plant and harvest rice: Mr. Mangwiro reported that his late father had used to plant maize and sometimes traditional rice varieties in the wetland. After his father's death, he said, he had continued with planting maize and rice in the wetland; but, after the NGWP, he had decided to introduce a bigger range of crops and vegetables in the wetland, such as onion, tomatoes, wheat and sweet potatoes. He reported that, when other families were busy searching for vegetables and food, his family had a constant supply and variety of foodstuffs from their gardens. For example, they had vegetables in the dry season whereas dry land farmers were hunting for vegetables from various sources. He attributed their good fortune to some of the 'tricks' they had learnt from the NGWP. According to Mr. Mangwiro:

> I was not a member of the wetland project; but after the harvests I saw from the wetland project ... I sat down and said to myself: 'I need to plan for my wetland just like what they do for the project'. The wetland project was an eye opener for me and I started trying to learn one or two things from there. I would go there while they were working and just observe. What I clearly noticed was the ridges and furrows and the water reservoir. I thought the ridges and furrows will be difficult for me to copy but the water reservoir I could try that one … I had a small well in my wetland farm that my father had constructed with the help of his two brothers, so I set out to increase its depth and width. I got some help from my relatives whom I promised to help with vegetables if they needed some for household consumption during the dry seasons... and I managed to create my water reservoir. I wanted the water reservoir because, in the wetland project,they used it to water their vegetables. The first year after I had my water reservoir, I made money, lots of it, from the vegetables I grew in the wetland garden. I had the best vegetables, and I used to go and sell them in Shurugwi town… Ever since then I have been growing different kinds of vegetables and selling them. The water reservoir holds water for longer, even after the rains have stopped… Because of the reservoir, my wetland is my 'evergreen garden'.

During my fieldwork period, Mr. Mangwiro was also able to harvest maize from their wetland gardens twice in one farming season. He planted maize between September and October 2006 before the rains. By the first rains the maize crop had already germinated. Despite erratic rainfall, he was able to harvest both green mealies[71] and dried maize from his wetland farm. His family was among the first, each season, to be able to harvest and eat green maize in Mufiri and they also had grain for maize meal. Most villagers who relied on rain fed farming did not have any maize grain during this pre-harvesting season and therefore had to struggle to secure grain for their daily needs. Mr. Mangwiro, like others who had learned from the project, was thus cushioned from the pre-harvest grain shortage. Mr. Mangwiro even sold some of the green mealies but, because of erratic rainfall, he reserved the bulk of the harvested maize for household consumption.

According to Mr. Dube (another project committee member and one who was also an informal wetland farmer) and Mr. Mangwiro, they had copied the early maize planting dates the AREX Officer had used in NGWP, and had realized they could even plant maize again in the same season and harvest a second time.

Pictures 31 and 32: Early harvested maize from Mr. Dube (first picture) and Mr. Mangwiro's wetland fields (second picture)

Mr. Mangwiro reported that he had experienced a gradual increase in maize harvests from his wetland. Table 15 shows his maize harvests, excluding green maize, from 2002 to 2007. The years 2002 to 2003 were before he had adopted *Ngwarati* technologies; the years 2004 to 2007 are years after he had adopted the *Ngwarati*-

[71]This is corn on the cob. In Zimbabwe green mealies are boiled and eaten as a snack.

inspired water reservoirs by expanding his existing well. Before expanding the well, Mr. Mangwiro reported that he had used the well to draw water for some of his crops and also for drinking water for his cattle – he had seven cattle and four goats (see case 9 below). Once he had expanded it into a water reservoir, he began using it for watering vegetables in his wetland garden.

Harvested Maize	
Year	**Tonnes**
2002	0.2
2003	0.35b
2004	0.56
2005	0.69
2006	1.12
2007	0.84

Table 15: Maize harvests from Mr. Mangwiro's wetland.

This case study illustrates the benefits that accrued to families that adopted the water reservoirs concept from the NGWP, and it shows that there were unexpected benefits of the NGWP that were being realised in the informal wetlands. Such positive spin offs of the NGWP thus became evident as ever more farmers with access to informal wetlands adopted *Ngwarati*-type technologies. Case study 7 shows some of those positive outcomes for local farmers that came about as a result of the implementation of the NGWP in Mufiri.

2.1 Wetland conservation and sustainability

Due to the size of the project' wetland and the lack of necessary machinery or resources to hire it subsequent to its initial construction, project members found it difficult to maintain its broad ridges and furrows. Although my study was not designed to assess the environmental effects of the *Ngwarati* technology, I observed increasing environmental degradation at the NGWP site. That degradation took various forms including soil erosion as the ridges began to collapse, the development of gullies running across the furrows and, in some instances, through places in the ridges, and consequent siltation in the water catchment area. NGWP members commented critically about erosion of the top soil that they observed and the degradation of the furrows and ridges. As one member, Mrs. Mano of the NGWP pointed out, 'the wetland had lost its fertility'.

Despite the locally recognised environmental problems that had been observed in the NGWP area, informal wetland farmers used knowledge gained in the project and also directly from the AREX officer to conserve their own small wetlands. The AREX officer explained to me that it had proved difficult to conserve the NGWP site because farmers did not have access to the required technology to maintain the ridges and furrows against damage that had environmentally degrading consequences. The AREX officer also suggested that, had the full complement of members remained with the project, and had all dedicated the amounts of labour time to it that were required, they could have managed to maintain the ridges and furrows. The members' inadequate provision of such labour power thus made it impossible to maintain the ridges and furrows. She also reported, however, that when she had been approached by individual informal wetland farmers for it she had given them advice on wetland conservation techniques that she had learnt before and during the implementation of the NGWP. Some of the conservation techniques that she taught the informal wetland farmers included adding top soil to the ridges and clearing the furrows. Case study 8 below exemplifies one such farmer who, having obtained such advice from the AREX officer, adopted the conservation techniques learnt from the NGWP in his own household's wetland garden.

Case Study 8: Sustainable use of small-scale wetlands

Picture 33: Mr. Chihota in his wetland garden with small broad ridges and furrows

Mr. Chihota was born in 1951 and married his wife in 1979. He was of the Gumbo totem. As a bachelor, Mr. Chihota had lived near Pakame Mission in Shurugwi district. After marrying, he moved to Mufiri area where he was allocated a stand in Zambezi village. The couple had four children and, during my fieldwork, they were living with a daughter and her child. Their remaining three children, having

completed their secondary education, were working in Masvingo. Mr.Chihota reported that, after much consultation with Mr. Moyo (case study 5), he had constructed ridges and furrows in his wetland vegetable garden but not in his wetland field. For conservation purposes, he had consulted the AREX officer who had advised him to always maintain the ridges in his wetland by adding top soil and planting different crops on the ridges from those planted in the furrows – to help with maintaining the fertility of the wetland. The AREX officer also advised them on how to prevent soil erosion and advised them to care closely for the edges of the ridges and furrows so as to prevent them from disintegrating.

Mr. and Mrs. Chihota were both actively involved in wetland farming for 15 years and, like the other couples in my informal wetland case studies sample, they worked as a team. Mr. Chihota was also involved in the Heifer Project that was implemented in Mufiri in 2002.[72] Mr. Chihota had the largest wetland area of all the case families: His wetland measured about 3.2 hectares of which 0.8 hectares were used for the garden.

According to Mr. Chihota he was initially hesitant to adopt the *Ngwarati* technology on all his wetlands and so he decided to experiment in his garden. He said:

> I liked the ridges and furrows. Even though we were not members of the wetland project, we could see the benefits the members of that project were reaping from their participation… Just like the other informal wetland farmers, I decided to try the broad ridges and furrows, especially when I saw Mr. Moyo's garden. Constructing the ridges and furrows was hard work...my wife and children helped me construct the ridges ... we used hoes and shovels to construct the ridges and furrows... What is more demanding is to maintain the ridges and furrows so that they do not collapse and the furrows do not become infertile… Once a week with my wife, we come and just concentrate on maintaining the ridges and furrows… if there is need for more soil we add… if its compost [that's needed] we add, the compost we get from leaf matter and sometimes cow dung [manure]…The wetland project members have neglected maintaining their [the project's] ridges and furrows and that wetland has deteriorated… that is not good at all. The ridges and furrows have to be maintained. With my wife we agreed that the wetland we have is even for our children and it is our life line and back bone… Do you understand? … So we have to maintain it whereas for the wetland project, people just do not see it as their land and just leave things to whoever must do it…We have tried to learn what we can from the project and apply it to our wetlands.

[72] The Heifer project was introduced by an NGO called Christian Care. The donors had bought cattle for the members of this project and the aim was to rear the cattle and increase the herd for distribution to the members.

Referring to the value of the *Ngwarati* technology, Mrs. Chihota said that they had noticed an improvement in their King Onion harvest since they had incorporated the ridges, furrows and conservation techniques learnt from what they had seen at the NGWP and from the AREX officer. Table 16 below shows their gradual increase in onion harvest. To measure the onions, Mr. Chihota said, he used the concept of 'bundles' whereby each bundle had 10 onions. He started applying the various conservation techniques learnt from the NGWP in 2004.

Onion Harvested from Wetland Garden	
Year	**Bundles**
2002	15
2003	20
2004	23
2005	31
2006	38
2007	44

Table 16 showing onion harvests from Mr. Chihota's wetland garden: 2002-7

Picture 34: Mr. Chihota showing his King Onion crop in their garden

Picture 35: King Onions grown in Mr. and Mrs. Chihota's wetland

I repeatedly observed Mr. and Mrs. Chihota applying various conservation techniques in their wetland. For example I witnessed them adding additional soil to the ridges – soil acquired from ant hills in and around the surrounding villages. There were numerous such ant hills in Mufiri, and farmers acquired additional soil from them instead of digging soil from elsewhere and causing further degradation. Mr. Chihota said that when it rained, the top soil of the ridges was sometimes washed away into the furrows and so, by adding soil to the ridges, they were trying to maintain the top soil of the ridges.

This case shows how informal wetland farmers such as Mr. Chihota, having adopted the *Ngwarati* technology, had adapted it in a way that enabled them to work towards sustainable use of their wetlands. Mr. Chihota reported that conserving their wetland meant that their wetland would remain fertile and would continue to conserve moisture. As indicated in the quote above, it also meant ensuring that it was transferable to their children in due course.

A more general issue to which the case points relates to the significance of people's relationship to the land of the project versus that of their own households. When Mr. Chihota said that 'we have to maintain it [our wetland field] whereas for the wetland project, people just do not see it as their land and just leave things to whoever must do it…' he was effectively pointing to how the project members did not regard the project fields as their land, something that in turn raises important issues in relation to the core problems of the NGWP that I have discussed in detail in previous chapters.

The main problem was that, through the NGWP having been run as an ostensible cooperative but actually as a top down managed project, no project member felt a strong sense of ownership or responsibility for it. As a result none was willing to invest the amounts of time and energetic labour in it that those who had their own personal wetlands did.

For example, as shown in Chapter IV, project members who were harvesting the project field complained of being tired after just one day of hard work; but in their own informal wetlands, people such as Mr. Chihota did not complain about becoming unacceptably tired from working in the wetlands. According to Mr. Chihota, though sometimes they felt tired after their wetland activities, they did not complain because they felt a good feeling of being tired after working for themselves and knowing that they would benefit directly.

The project members' experiences here resonate with Karl Marx (1844)[73] work on alienation or estranged labour. Marx argued that in capitalist societies, property less workers working under the capitalist system experience an estrangement or alienation from the world they work in. He wrote about the alienation of the worker from the product of his work and also from the activity of production. In the case of the NGWP, in the same way as Marx wrote about the property less workers I would argue, the project members did not have full ownership of the project and as a result they felt alienated from the very project that they were meant to be in control of and benefiting from.

3. An analysis of the informal wetlands and technology transfer

The four cases studies presented above show that, although the NGWP had collapsed, some local farmers were able to adopt, adapt and apply various techniques from the NGWP to their informal wetlands, and to do so with considerable success in terms of food supplies and income generation. The benefits were not immediate but showed a slow increase in productivity and in the variety of crops grown, and they offered possibilities for the long term. The four cases studies thus show that despite the

[73] Available at http://www.marxists.org/archive/marx/works/1844/manuscripts/labour.htm (Accessed 25 January 2011)

collapse of the wetland project there were positive spin offs or residues that resulted directly from the project.

Despite the role that the *Ngwarati* technology has played in boosting production for the four households described in the case studies above, however, most still faced challenges which had the effect of reducing the benefits that accrued from their wetland activities. Those challenges included, firstly, the fact that wetland agriculture is labour intensive, especially when using the *Ngwarati* technology. In such instances some of the families concerned had had to rely on their children's labour, and continued to do so with consequences for those children's ability to attend school. A second such challenge derived from the fact that HIV and AIDS have not spared farmers in Mufiri, many of whom have found their incomes eroded by medical costs and their ability to dedicate labour time to their agricultural activities undermined by the need to care for the sick and to attend funerals of relatives in other parts of Shurugwi and Zimbabwe. I now consider these challenges as they were experienced in Mufiri by informal wetland farmers who had adopted *Ngwarati* technologies.

4. Challenges faced by informal wetland farmers

4.1 Children's involvement in wetland agriculture

As already mentioned, and as indicated to some extent in the above case studies, informal wetland householders' ability to acquire adequate labour was a major challenge that they faced. As shown above, household members from the case studies sample reported that the construction of the ridges and furrows was labour intensive and that their 'evergreen gardens' needed almost round-the-clock attention. For all, labour availability was their biggest challenge because there were ongoing farming activities in the wetland throughout the year, making it rather different from conventional rain fed farming. Moreover, a further difference was that the wetland crops needed to be protected against cattle during the dry land non-farming seasons when conventionally cattle have been entitled to move freely in both grazing and non-grazing (arable) areas. Each year the sub chief announced the dates when cattle, goats, donkeys and sheep were allowed to roam freely in Mufiri. During fieldwork, two of the households in my case study sample had their gardens broken into by such cattle, and some had resorted to using their children's labour in order to cope with the

high labour demands of securing their land from the ravages of grazing animals. Children's labour was also used for various other activities.

When I first encountered children working in the wetland gardens, the experience threw me back to a study I had done in 2001 about the roles of children in rural families that focused particularly on the role children played in various households in the Chimanimani district of Zimbabwe (Mangoma and Bourdillon 2001). As that study showed, children's work is not regarded by members of rural Zimbabwean households as 'labour' but as a vehicle for training (Mangoma & Bourdillion 2001). In Mufiri I observed children contributing to their households through various chores that they carried out such as fetching water and firewood, and cooking, babysitting and doing agricultural work throughout the different seasons.

In analysing children's work in Mufiri, I have focused on children's work undertaken within the context of the family and not on waged employment. In doing that I follow Nieuwenhuys (1994:9) who makes a distinction between waged work and family work and says that 'while waged employment is generally agreed to lead to the objectionable exploitation of children, work undertaken under parental supervision is conceived of as part of the household's moral economy and an essential aspect of socialization'. In this section, I focus on children whose household tasks included their having to work in wetland agriculture. In particular, I focus on two children from two of my case studies sample,[74] both of them of school going age and who were actively involved in informal wetland farming and, as a result, were not attending school.

I identified the two children, Gloria Mangwiro (see case study 7) and Peter Maziva (see case study 6), during our weekly research monitoring visits to each case-study sample household and through interaction with members of those households. I noticed that the two children were always around during our case study home visits which were mainly during weekdays. At the beginning of my fieldwork in 2006, when I first met them, the respective parents had told me that the children were attending school but had missed school on that day to help out in the wetlands. As fieldwork progressed, however, I realized that the children were not going to school at all. The parents later told me that they had withdrawn their children from school in

[74] The two children belong to households presented in this chapter as Case Studies 6 and 7.

order to have them help with their wetland farms, but added that they would be returning to school the following year. Yet 2007 came and I noted that the two children were still not back in school and were pretty much full-time workers in their households and on the households' wetlands. Having established rapport with the children, I asked them to keep diaries to record their daily activities and also stories about their lives. During our family visits I would take time to chat with them and go through their diaries.

Gloria's and Peter's parents lived in the same village and had both adopted elements of the *Ngwarati* technology (as shown in case studies7 and 6 respectively) and it was soon after adopting the technology that Gloria and Peter were asked by their parents to drop out of school. The two cases that I present below show the need for some informal wetland farmers who had adopted the *Ngwarati* technology to use their children's labour in the wetlands and also for domestic chores when they did the wetland work. This led to some children such as Gloria and Peter withdrawing from school.

Case Study 9: The wetland is my school

During my first interview with Gloria Mangwiro (see case study 7) who was 13 years old in 2006 and had completed only seven years of schooling, I asked her what she wanted to be in life. Her response was: 'when I grow up I want to be an agricultural extension officer and then I will move around the village on my motor bike and assist my family and other villagers with their farming activities… I do not go to school but, as I work on the farm, I have learnt a lot of things…'

Picture 36: Gloria washing plates before heading to the wetland garden

Picture 37: Gloria guarding the wetland farm against stray goats and cattle.

Gloria was the third in a family of seven children. From what I observed and what she told me, she did not go to school, instead spending her days doing household chores, taking part in wetland activities and sometimes herding cattle.

Gloria had had to drop out of school because, her parents said, they had not been able to pay her school fees. She explained that her parents had told her that, like her elder sister and younger brothers who were all attending school, she would eventually continue her education once they had secured fees for her. Yet when I asked the parents about it, they were evasive and said they had no money and that only once the

older children had finished school, would Gloria be able to return to school. Later her parents said that the small income they had would ensure that Gloria's older brother and sister finished their secondary education and would hopefully be enrolled at one of the teaching or nursing colleges, or would find wage-earning jobs. As a result Gloria had had to drop out of school though once her brother and sister finished school, they said, she would also get an opportunity to do her secondary education.

From my observations, Gloria worked for about 10 hours a day. She claimed she had no time to rest, something I also observed. Her typical day began with cleaning the house and washing plates and other kitchen implements. Gloria's parents were often sick (her father passed away during my fieldwork period) and so she carried out most of the household chores as well as much of the household's wetland activities. After fetching water and cooking for her parents and siblings, Gloria spent most of her time guarding the wetland from cattle and other domesticated animals during the winter season when animals were free to roam around after harvesting of crops in the dry lands. During the other seasons she assisted her parents with wetland and rain fed farming activities.

While guarding, she was also expected to water the vegetables, weed and do any work that had to done in the wetland garden. In addition, she had often to dash home to cook or do other chores when her mum came to relieve her in the wetland. Among those chores was her having to care for her two younger brothers, aged four and two years, and make sure they were well fed and bathed – tasks her mother was often too unwell to undertake.

Gloria was also involved in her village's cattle-herding club or *madzoro.*[75] All those with cattle from her village had arranged a herding roster. She usually spent one day a week herding the cattle on her own. When her older brother, their parents' first born, was not at school, he would also help with herding cattle. Each household was responsible for sending one or more of their members to herd the cattle when it was their turn. See Picture 38 below showing Gloria's brother herding some of the village cattle during their turn to do so. The cattle herding club is one example of the numerous forms of cooperative labour found in the villages in Mufiri. What I observed during my stay in Mufiri was that, when there was a household need for

[75] A local Shona word referring to taking turns to do something.

labour, the household members called other villagers to help and sometimes formed work parties. The responsible household would provide food for their fellow villagers who came to help.

Picture 38: Gloria's brother herding cattle from the cattle herding club

During one of our many discussions Gloria excitedly explained how, when it was her turn, she would herd the cattle across the valley near their village and drive them up towards the nearby mountains, and would then return to the village through some forested areas. The whole herding trip covered 14-25 km and herding the cattle took her the whole day. However, she said, herding cattle was fun and she felt free as she ran with the cattle and made sure that none got lost. She said it was better to herd cattle than to have to remain in and around their home because that consisted of many diverse chores while herding cattle required her to focus on just one activity. Her parents also remarked *'takamuita mufudzi wemombe…asi tinoda kuti aende kuchikoro.'* (We made her our cattle herder but we want her to go to school). Despite her age, Gloria worked like an adult and contributed most of the labour required for the functioning of the household and especially for the up-keep of the wetland farm, even though it was her parents who planned the bulk of the wetland activities that she carried out.

For the five months that Gloria's father was bed-ridden before his death,[76] she had to shoulder many responsibilities at home and in the wetland where they had grown the

[76] See case study 6

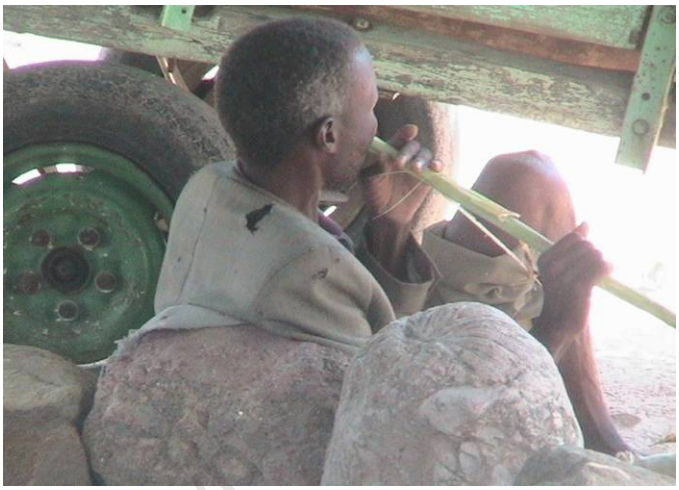
early maize crop. As discussed in case study 7, Gloria's father, Mr. Mangwiro, passed away in 2007. I discuss his case as a suspected HIV case since I do not know if his death was indeed HIV-AIDS related, though all indications suggested to me, as a layperson, that it was. During the first four months of my field work, Mr. Mangwiro did not complain of any sickness and, during our weekly visits, we would find him engaged in various wetland activities. However, in September 2006 he started complaining of diarrhoea which he said he believed to have been caused by drinking too much traditional beer. Despite seeking medical treatment, Mr. Mangwiro began to deteriorate to the point of being bed ridden and started to lose weight rapidly. One of his neighbours told me that most other villagers had expected him to die since they said that his condition was HIV related and that people were just waiting for his death.

In November 2006 Mr. and Mrs. Mangwiro sold a goat from their herd of four goats and used the money to travel to Masvingo to seek treatment at the provincial hospital; but Mr. Mangwiro did not respond positively to the treatment. In January 2007, they decided to sell a cow (one from their herd of seven cattle) and to use the proceeds to seek treatment in Gweru. Mr. Mangwiro recovered briefly, but then fell ill again and died in June 2007.

As a consequence of his illness, Mr. Mangwiro had missed the whole farming season. By the time of an interview in March 2007 he was no longer going to the wetland field and was leaving all the work to his wife and children. Mrs. Mangwiro was, however, involved in caring for her husband and hence the wetland farming activities were left to the children, and especially to Gloria.

Throughout Mr. Mangwiro's sickness and ultimate death, family members and some neighbours attributed his illness to witchcraft. The relationship between witchcraft and HIV and AIDS in Zimbabwe is similar to what Ashforth (2002) describes for post apartheid South Africa when he discusses how witchcraft was used to interpret AIDS infections among black South Africans. Ashforth gives an example of how, after the death of a young man in his late twenties, his relatives were debating whether his death had been caused by HIV and AIDS or *'isidliso'* (black poison). The *isidliso* was believed to be the evil work of what people called witches. In this case, as in the case

of Mr. Mangwiro, witchcraft provides a framework of moral agency that can make sense of seemingly random coincidences in space and time.



Pictures 39 and 40: A once healthy farmer pictured with the researcher on a tour of his informal wetland farm (June 2006) and in Picture 40 resting after having been bed ridden for several months (March 2007).

Mr. Mangwiro's case shows how HIV and AIDS or related illnesses can be a burden to farmers and how presence of the disease can erode benefits acquired through hard work. In general, the epidemic affected many farmers through causing a loss of productive hours, the erosion of benefits accrued from farming activities and labour shortages.

According to FAO (2001:2), 'increasingly, the HIV and AIDS epidemic is having a major impact on nutrition, food security, agricultural production and rural communities'. In Zimbabwe, the Ministry of Agriculture and Rural Development has acknowledged the impact of the HIV and AIDS epidemic on all areas of agriculture, and has recognised that farmers have witnessed a 'decline in crop varieties … [with] subsistence farmers being forced to sell cattle and donkeys used for draught power to meet care and treatment expenses' (IRIN: 2006)

During the period of her father's illness and ultimate death, Gloria had no option but to work because her father was sick and the work was too much for her mother who was also sometimes sick. Gloria said that she was proud that she could stand in for

her family and commented that she was certain she would return to school when her parents could afford the fees.

Gloria was a jovial young girl and eagerly awaited our weekly visit to relate what had been happening and show us around the wetland garden. She repeatedly boasted that the wetland was her school and that she had learnt a great deal from her parents about wetland farming. She even said that she could teach other local farmers about wetland farming. Her role model was the local AREX officer. During my numerous visits to the home, Gloria spoke about the AREX officer and she also wrote in her journal how one day when she grew up she would be just like the AREX officer and ride their motorbikes together going around the ward training people about farming. Yet without a chance to complete her formal schooling, Gloria's chances of becoming an AREX officer were slim.

The introduction of *Ngwarati*-type wetland technology onto informal wetlands, while it clearly had certain benefits, had potentially negative effects on the life chances of many young people's future aspirations, particularly when it meant making labour demands on young people. As Gloria's case shows, even as some informal wetland farmers adopted the *Ngwarati* technology and thus improved their per area of land productivity, so did the associated labour demands result in their having to make use of their children's labour to the extent that some dropped out of school.

As we have seen, children's labour was needed in the construction and maintenance of the ridges and furrows, watering the vegetables, guarding the wetlands from cattle and other domesticated animals, planting, weeding and harvesting of crops. Moreover, although I have no detailed material to demonstrate the point, it appears that the increased per area productivity of informal wetlands under *Ngwarati* technology may have had the effect of decreasing the productivity per unit of labour – much as Geertz (1963) has suggested was the long term outcome of increasing the complexity of irrigation systems in Java.

Case Study 10: As young as I am, working I must

In my first interview with Peter, I asked whether he wanted to back to school and he responded saying 'school ?.. but I must help my parents with work because they do

not have anyone to help them…I help so that we can have food and the money that we need…I do not want to go back to school because I want to help my parents with work at home, in the field and the wetland'

Picture 41: Peter listening attentively during a community feedback meeting I held at the end of fieldwork

Picture 42: Peter working in the wetland garden

As indicated, Peter worked in his parents' wetland garden and was not in school. His parents (see case study 6) initially explained to me that they could not afford to send him to school; but later, like the Mangwiros (cases 7 and 9) they claimed labour shortages as the reason their child, Peter, had had to stop attending school – 'for a while'.

Unlike Gloria, however, Peter was no longer interested in going back to school because, he said, he enjoyed the wetland farming and doing the numerous daily

household chores required. From what he told us, and from what he recorded in his weekly diary, Peter usually woke up around 5am to water all the vegetables in the wetland farm situated 150 metres away from the homestead. During the day Peter guarded the farm and carried out other wetland activities like transplanting, sowing, weeding or harvesting, depending on the season. He also cared for his sister's child. Like Gloria, he worked an average of 10 hours a day.

Peter's parents claimed to be training him in the 'art' of wetland agriculture, something they said was *'upfumi hwemhuri'* (a source of wealth for the family). His parents explained that, because the wetland farms were labour intensive, they had had to rely on Peter's labour – as their older children were all working in the cities. Even as a boy, they explained, Peter had cooked meals for the family and carried out other household chores like cleaning, washing plates and clothes and fetching water and firewood.

In 2007, during one of our case study home visits, I was informed that Peter was now working part time herding cattle at another villager's home but that he often returned home to help in the wetland garden. His mother said that she had decided that that he must take up the job so as to raise some much needed cash for the household since sometimes they were unable to find sufficient local villagers to buy vegetables from their wetland gardens and thus ended up having to discard a potentially sellable surplus. However, by the time we finished field work, Peter had quit the herding job and was again working full time in his parents' wetland farm.

Peter's case again shows how labour demands for farmers who adopted the *Ngwarati* technology resulted in them making use of their children's labour. That Peter was sent out, albeit only for a short time, to undertake a herding job for which his parents were paid, also shows some of the tactics people used in order to create some sense of food security for themselves and to ensure their livelihoods.

4.2 Child work: A necessity or just another option?

Both Gloria and Peter contributed significantly to the functioning and operations of their respective households' wetland farms by guarding the wetland throughout the year, watering the gardens, planting various crops and vegetables, weeding and

harvesting. Faced with high labour demands in wetland agriculture, especially after adopting the *Ngwarat*i technology, some families saw only two options: withdrawing their children from school or combining school and work. Both Peter and Gloria had left school.

From our observations of and discussions with Peter and Gloria, it was clear that they were both knowledgeable about wetland farming and had acquired various skills of which they were proud and which appeared to be such that they would be able to continue with wetland farming once they were themselves adults. It was also apparent that both children contributed significantly to the resources needed for the survival of their households. Their parents relied on their labour and yet, when I asked about the role of their children's labour, the parents did not want to acknowledge it as such, despite the fact that it contributed significantly to providing their respective households' sustenance. For example, when I asked Gloria's mother about Gloria's contribution, she said *'vanaGloriah vanongobetserawo'* (Gloria just helps). Her tone seemed to indicate that Gloria's contribution, though helpful, was not essential, whereas our observations indicated that her labour was indeed essential for ensuring adequate provisions for the family.

Such findings on the role of children in wetland farming in Mufiri concur with the conclusions of Bass's analyses of studies of rural household labour in Zimbabwe. Bass (2004:85) comments that 'children's contributions to household labour supply were significant'. For example, he showed that some parents reported that their children did '28% of the weeding, 35% of the planting and 51% of the harvesting work on average in the subsistence farm setting' (ibid:2004:85). Children's labour is thus a significant component of families' labour requirements (c.f. Reynolds 1991; Nieuwenhuys 1994; Mangoma and Bourdillon 2001; Bass 2004; Mishra 2004; Kielland and Tovo 2006). According to Morrow (1996:6), the work of children is 'a ubiquitous and value laden feature of family life in most parts of the world'. And according to Nieuwenhuys (1994:6), 'the children of the rural poor engage, by and large, in a variety of activities that, though seldom remunerated, are necessary for the livelihood of the family'.

As indicated in the case studies earlier, Peter's and Gloria's work was important for their families and their families' respective livelihoods, especially since their labour was crucial for the upkeep of the wetland farms and gardens.

5. Conclusion

Despite certain challenges such as the shortage of labour and the possibility of a fall in returns on labour inputs along with an increase in per area of land productivity, this chapter has shown positive consequences for informal wetland farmers who adopted *Ngwarati* based technologies. Benefits that proved to be only short-term for members of the original project showed positive medium-term results for informal wetland farmers, and seemed to promise the possibility of longer term benefits too. Unlike in the NGWP itself, where it failed for a variety of reasons that have been detailed in chapter 5, the *Ngwarati* technology, or at least certain aspects of it, proved to be sustainable and appropriate for small individual household controlled wetland gardens than for the bigger project lands.

By considering the issue of technology transfer, I have thus been able to present some of what Crush (1995) calls the 'other stories of development' that are usually not told. This is in line with the general argument of this thesis that, while there are many negative stories about the effects of development interventions, some explicit and others left untold, there are also positive stories that must be told in order to give a complete picture of development projects and their impact on local populations. When one reads post development literature, the positive aspects of development become invisible and are drowned in the radical critiques offered. However, as I have shown in this chapter, there are some positive effects of development and 'stories of what development meant for those visible lives it transformed' and that, as Crush (1995:22) says, need to be told.

From such a perspective, the real importance of the NGWP is not in its intended outcomes as anticipated by those who planned and oversaw the implementation of the project, but in its 'side effects' of technology transfer both to informal wetlands and, as I show in the next chapter, to dry land farms. Faced with a failing development project on their doorstep, this case reveals how local farmers may and in some instances do manage to negotiate and find meanings and solutions to some of the problems they encounter with development. In their doing so we see that they are not

passive recipients of what comes their way but active 'actors' who adapt and adopt what is useful to their own benefit (Long: 2001: 19). The case of the informal wetland farms discussed in this chapter has provided evidence that had enabled me to challenge and question some of the post development critiques that have quickly labelled development projects as failures without looking at some of the positive spin offs that could improve local livelihoods. As these cases have shown, local farmers are not passive; they are actively involved in development processes and they choose the aspects they deem beneficial and appropriate for them and use them to improve their livelihoods (Long: 2001).

VII: ADOPTING AND INNOVATING TECHNOLOGY ON DRY LAND FARMS

> Planned interventions may produce unintended outcomes… (Ferguson 1990:20)
>
> Dry lands people are remarkably resilient and have succeeded in increasing their incomes in sustainable ways, and in coping with all but the most severe natural calamities (Reij & Steeds 2003:v)

1. Introduction

Dry land agriculture under rainfed conditions is found in most parts of Sub Saharan Africa, including much of Zimbabwe. In places such as Mufiri ward, water is the principal factor limiting crop yields. According to Van Duivenbooden et al (2000:1), 'water scarcity is a major factor limiting agricultural production for millions of resource poor dry-land farmers. The small amount of rain combined with erratic and unreliable occurrence constrain the achievement of stable, sustainable production systems providing satisfactory, low risk livelihoods'. Given such a scenario, agricultural innovations become an alternative for some rain fed farmers in a bid to make maximum use of water available for crop growth. Farmers in Mufiri are no exception as they try to be innovative in their farming techniques. In this chapter, I show how, despite the *Ngwarati* technology having been designed specifically for wetlands, some innovative rain fed farmers adopted some of the skills associated with the technology, such as contour ridging, water reservoirs and water conservation techniques, in order to improve their yields. I also explore some of the challenges faced by rain fed farmers and show how some of these challenges have resulted in some farmers adopting the *Ngwarati* technology in their quest to make a living.

Mufiri ward, like much of Zimbabwe's Midland Province, is characterised by low rainfall making it difficult to grow crops. Mufiri ward is also one of the areas characterized by 'sporadic rainfall and inherently low soil fertility with marginal to poor agricultural potential' (Chikuvire et al 2006:160) and to which smallholder farmers were relegated during the colonial era. During my fieldwork I was repeatedly told by Mufiri residents that their area was experiencing recurrent droughts. Twomlow (2008: 1), who reports that 'in the drier areas of Southern Africa, farmers experience drought once every two to three years', confirms the experiences of Mufiri

residents. Not only do farmers in drier regions such as Mufiri grapple with erratic rainfall, but sometimes they face major constraints such as 'low soil fertility, low productive genotypes, low adoption of improved soil and crop management practices and lack of appropriate institutional support' (Van Duivenbooden 2000:1). Agricultural research in Zimbabwe has resulted in innovations such as the *Ngwarati* technology that are designed to enable farmers to increase their yields (Rukuni et al 2006).

Below I present data for the four households that had adopted (case studies 11 and 12) or were in the process of adopting (case studies 13 and 14) the *Ngwarati* technology. Case studies 13 and 14 shows in greater detail the challenges faced by dry land farmers that led some of them to adopt the *Ngwarati* technologies.

2. Innovation and Experimenting: Dry-land farmers

In this section, I present case studies about two rain fed farming households that had adopted particular aspects of the *Ngwarati* technology on their dry land fields. Neither of them practised any form of wetland farming, unlike the wetland farmers discussed in chapter VI, some of whom also had dry land fields although none had transferred the technology to those fields.

I use data from these two dry land case studies to show in detail the water conservation techniques that farmers adopted from the NGWP. Only four of the total of 32 dry land farmers in Hwini village mentioned that they were using techniques from the NGWP and, just as amongst informal wetlands farmers who had adopted *Ngwarati* techniques, such information captured my attention and is recorded here for its relevance to my thesis topic. Unlike farmers involved in wetland agriculture, dry land farmers relied solely on rain fed agriculture and had no land that conserved moisture for a long time. Thus, for them, any possible means of improving the soil's water retention was a potential benefit.

The four dry land farmers and their households who were using techniques from the NGWP had not adopted the broad ridges and broad furrows of the *Ngwarati* technology as did my sampled informal wetland farmers. Rather they had adopted water conservation techniques such as *zvikomba* (shallow water-retaining trenches or

ditches) and contour ridging. Adopting these wetland based techniques on their dry land farms showed innovation on the part of the farmers concerned. The AREX officer often referred to both dry land and informal wetland farmers that had adopted *Ngwarati* based technologies as 'innovative farmers'. According to the AREX Officer, these farmers did not rely on extension advice only; they also experimented on their own with various techniques that they had seen used in the NGWP and that were within their capacity to attempt to introduce using their own labour and implements. The cases I present below show how their doing so provided positive spin offs from the presence of the NGWP through those farmers' adaptation and application of *Ngwarati* technology in their dry land farm fields.

Case Study 11: Adopting wetland water conservation techniques

Mr. Mandima was among the dry land farmers to have adapted certain *Ngwarati*-type water conservation techniques that he had seen implemented in the NGWP and that he applied in adapted form in order to improve his field's soil fertility and water retention capacity. Born in 1941 and married in 1964 to his wife Mary Mandima, he was of the *chuma* (sheep) totem and was an active member of the Methodist church. Mr. and Mrs. Mandima had seven children, three daughter in laws and six grandchildren. Originally from the Chirongoma area in the Chivi district under Chief Mawere, Mr. Mandima had settled in Mufiri (Hwini village) in 1972. That was during the period of 25 years that he worked at the chrome mines in Shurugwi (1967 to 1992) after which he retired from wage work and came to live permanently in Mufiri and to work as a full time farmer.

Mr. Mandima was not a member of the wetland project because his home in Hwini village was, he said, too far from the wetland project site to make membership worth his while. Mr. Mandima was, however, a master farmer and the chairperson of the Area Farmers Association, a role that meant that he coordinated all of the area's farming issues pertaining to the marketing of crops and the purchase of inputs from the Grain Marketing Board (GMB) as well as to organizing field days[77] and Area Farming Meetings. Three people that I interviewed individually concurred that Mr. Mandima was selected to be the Area Farming Association chairperson because of his

[77] These were days set apart in Mufiri to show case the best farmers, crops and fields. Each year a field day was held at the home of the best farmer for that year and all the farmers came to celebrate and show case their crops and locally made crafts. In 2007, a cow was slaughtered for the field day.

dedication to and passion for farming and because of the numerous farming competitions he had won through the years.

Over the years Mr. Mandima had been actively involved in Adaptive Research Trials (ART) and Participatory Adaptive Trials (PAT) developed by the Makoholi and Chiredzi Research Stations and, more recently, the University of Zimbabwe (SDARMP Report: 2002). Mr. Mandima said that, because of the challenges of erratic rainfall in Mufiri, he had volunteered to participate in most of these trials in order to improve his harvests. He also said that he had recently participated in an Open Pollinated Variety (OPV) maize trial that was run by Christian Care, an NGO that helped rural farmers with seed and sometimes food aid. In 2005, Mr. Mandima had also participated in a UZ-administered fertilizer and manure trial for which he had partitioned his field to be put under different fertilizer and manure applications, including a control area where no fertilizer or manure was applied.

He commented, however, that most of these trials had not solved his main problem of low rainfall and lack of moisture on his dry land farm field. A potential solution, he added, had come through his recognising that the NGWP's broad ridges and broad furrows ran along the contours and that inserting such contour ridges in his land might help retain moisture, especially if combined with shallow water-retaining trenches.

Based on the contour principle applied in the wetland project site he thus constructed contour ridges on his dry land field, hoping that way to minimize water runoff. He also dug shallow trenches about 500mm wide and 150mm deep in the spaces above and below each contour ridge on which he had planted his maize crops He called these shallow trenches *zvikomba* (singular *chikomba;* literally a small, wide hole in the ground –Hannan 1974: 71) and dug them as a means to retain moisture and to distribute it to the plants on the ridges below the trenches. Mr. Mandima said that by using the *chikomba* concept he was trying to adapt the idea of furrows along the contour and in which moisture collected in the NGWP field. As described in Chapter I, furrows collected water during the rainy season and were usually water logged especially during the remainder of the rainy season. Just like the furrows in the wetland, the *zvikomba* or shallow trenches collected water when it rained and became water logged for a few days, retaining moisture and, according to Mr. Mandima,

'hopefully until the next day that the rain fell during that rainy season' (see Photo 43 showing *zvikomba* with maize growing on the sides and Photo 44 showing the shallow trenches after harvesting).

Picture.43: The zvikomba or shallow trenches in between the maize crops

Picture 44: The 'zvikomba'or shallow trenches still evident in the maize field after harvesting. Maize had been planted on the raised soil.

These *zvikomba* between the maize maximised collection of water for the crops. According to Mr. Mandima:

> When I combined the manure and the *zvikomba* technology I had better yields in my dry land farm… The moisture levels in my field were improved by the contour ridges I had constructed around my field… For a while now I had not been able to sell any maize because I

did not have any surplus; but after experimenting with techniques from the wetland project I managed to sell about 1 tonne of maize to the Grain Marketing Board.

The *zvikomba* idea that Mr. Mandima developed was soon spreading among Mufiri's local dry land farmers; but it was labour intensive as the farmers had repeatedly to re-dig the shallow trenches between their lines of maize crops once they had begun germinating. For Mr. Mandima, this meant that he had to call on his wife, son and two daughters to assist him in his own field since he had little time to be in the field to attend to maintaining the *zvikomba*.

Table 17 below shows the maize harvests for Mr. Mandima and the different innovations he was using for the crop on the same area of land each year.

Harvested Maize		
Year	**Farming Techniques**	**Tonnes**
2001	Rain fed farming without innovations	1.2
2002	Adaptive Research Trials using a variety of hybrid seeds	1.83
2003	Use of Open Pollinated Variety maize seed	0.5 *(drought year)*
2004	Use of Open Pollinated Variety maize seed	1.5
2005	Fertilizer and Manure Trials. Use of hybrid seed and fertilisers supplied by UZ. Manure was collected from cow dung and dead leaf matter	2.4
2006	Manure & adapted *Ngwarati* technologies in form of contour ridging with *zvikomba*	2.80
2007	Manure & adapted *Ngwarati* technologies in form of contour ridging with *zvikomba*	3.15

Table 17: Maize harvests for Mr. Mandima household from 2001 to 2007

Mr. Mandima's good harvests can be attributed to hard work and adoption of various farming techniques including those learnt from the NGWP.

Picture 45 & 46: Mr. Mandima showing maize crop and the harvested maize from his farming innovations

According to Mr. Mandima, dry land farmers and their household members had to work hard in order to have a big enough harvest to provide for household consumption as well as sales of surplus. Yet, from his perspective, it was worth while doing so and the application of an adapted form of the *Ngwarati* technology made it a little more so. His case exemplifies both how there were some positive spin offs that trickled from the NGWP to rain fed farming in Mufiri, and that it needed farmer innovation and creativity to make it work.

According to Reij & Steed (2003:24) who wrote about success stories of dry land farming projects from various African countries such as Burkina Faso, Kenya, Senegal, Nigeria, Tanzania and Morocco 'experience shows that farmers do not passively wait for outside solutions, but actively experiment and innovate with agricultural and natural resource management'. Mr. Mandima's case shows how, when farmers are willing to experiment and realise the need to spread risk by investing time, energy and labour in a variety of diverse potential food generating activities, positive outcomes can occur. For Mr. Mandima, a dry land farmer, adapting a wetland farming technology to the particularities of dry land fields helped him to improve his household's maize yields.

Case Study 12: Water Reservoirs and Gardening

One of the biggest challenges for farmers in Mufiri with only dry land fields and gardens was to be able to grow vegetables for their households' dietary needs. Because of erratic rainfall, the dry land farmers' gardens were not producing adequate vegetables during the time I was there, and sometimes, as we observed, their vegetables dried out and died because of lack of water or moisture. Moreover, even in good times, dry land farmers were able to garden for vegetables only seasonally – that is during the few wet months each year. One woman who was part of a rain fed farming household spoke of how most of the women in their village grew a lot of vegetables during the rainy season and then dried various of them, including kale, English rape and also *nyovhi* (*Gynandropsis gynandra*)[78] for consumption during the

[78] Hannan (1981) also translated *nyovi* as 'Branching herb' and reported that the leaves are cooked as spinach

dry season. During the dry season, however, they also had to buy vegetables, either from informal wetland farmers or from the shops.

Attempting to overcome those constraints, some dry land farmers, among them Mrs. Matambo, had adopted the NGWP concept of water catchment pits (or in-field reservoirs) – discussed in Chapter VI – in their vegetable gardens. Mrs. Matambo was a widow who had been born in 1937. She married her late husband, a member of the *shumba* (lion) clan in 1958. Mr. Matambo died in 2003, aged 71. After their marriage, they initially stayed in the Zivisa area of Chivi district, but later relocated to Mufiri in 1968 where they were allocated a bigger field than they had had in Zivisa. The late Mr. Matambo had worked as a manager for a Shurugwi bottle store until he retired in 1990 when they came back into full time farming in Mufiri and where, from 1998 to 2000. Mr. Matambo was a member and the first chairperson of the NGWP committee. After his death, however, Mrs. Matambo did not pursue her late husband's membership of the project and his activities in the NGWP. Rather, she focused her energy on her garden and dry land field, but applying techniques there from the project.

Mrs. Matambo was herself a master farmer and relatively well educated, as shown by her ability to read and write English, a language she used most proficiently to complete the diary I had given her to record her activities. She was particularly interested in her garden that was located alongside her homestead, and spent much of her time there, even at age 70. According to Mrs. Matambo:

> Before we started our garden we had problems of growing vegetables throughout the year. We were not lazy to have gardens but the problem [was one] of [inadequate] water…We would plant our vegetables and they would dry out because of lack of rainfall and water sources to water them… So when my husband joined the wetland project he used to bring vegetables from there... I asked him how they managed to grow vegetables and he told me they had a small dam in the wetland which collected all the water from the furrows and from the rains… We began to think about it and we started to use traditional methods of looking for underground water in our site for the garden. Our site is not fully a wetland but it seems to have some characteristics of being a wetland…. we dug a deep well and, after some time, we secured it by building [a concrete enclosure] around it… It has become our water source and from that time I have had a garden and I have grown kale, onions, tomatoes, English rape and even maize. I sell some of the vegetables… The wetland project helped us with the idea of having a water reservoir…

Mrs. Matambo had six living adult children, various of whom were civil servants – one taught at a local primary school – and they assisted her with monthly remittances. Mrs. Matambo could thus afford to hire both permanent and part time workers to meet her labour demands in her garden and in her nearby dry land field. The support and remittances she received from her children made a contribution to her farming. She used it to her advantage as compared with other dry land farmers who had neither such resources nor easy access to the kinds of knowledge Mrs. Matambo could call upon.

Picture 47: Mrs. Matambo showing the enclosed well

Picture 48: Mrs. Matambo in her garden of kale vegetables

Mrs. Matambo was also involved in the Mufiri Consolidated Garden Project, which I discuss below. The case of Mrs. Matambo shows how members of the wetland project and their dependants were able to adopt certain techniques and skills they learnt from New Gato wetland farms and to use them on their own dry land fields and

gardens. Although the NGWP had collapsed and could no longer offer its members a promise of means to move towards food security and relatively secure income generation, some residents of Mufiri were benefiting from the knowledge they gained from the project.

3. Challenges for Dry-land Farmers

In Chapter VI I discussed the challenges faced by informal wetland farmers including high labour demands and HIV and AIDS. In this section, I look at some of the challenges that dry land farmers face. I must start by pointing out that the two sets of farmers often share the same challenges, such as high labour demand and HIV and AIDS, and others discussed in this chapter. Challenges for dry land farmers such as lack of resources, rainfall and adequate inputs resulted in some dry land farmers adopting the *Ngwarati* technology in a bid to improve their yields.

As I have already shown in Chapter I, during the time I was conducting fieldwork Zimbabwe was going through the worst economic crisis that it has ever faced. Local farmers had not been spared the harsh economic realities of the situation. Below I present data from two households from my rain fed farming case studies sample to show some of the challenges that dry land farmers were grappling with in their pursuit of food security. Members of these two households were also in the process of seeking help from other dry land farmers who had adopted the *Ngwarati* technologies to assist them in adopting the technology. I sought to explore the challenges they faced in order to understand why some of the dry land farmers were adopting aspects of the *Ngwarati* technology principally developed for wetland farming.

Case Study 13: The struggling farmer

Some dry land farmers with whom I interacted in Mufiri were struggling to secure adequate food and improve their livelihood from their dry land activities. One such household was the Matina family in Mufiri's Hwini village, a household that practised and depended on rain fed farming. Mrs. Matina, born in 1958, was widowed in 1998 after 16 years of marriage. She had five children and the family totem was *zhou* (elephant). The case of Mrs. Matina reveals various challenges that many local dry land farmers had to face and it led some of them to experiment with *Ngwarati* technology.

The Matina household was a picture of extreme poverty with Mrs. Matina trying to make a living from almost nonexistent resources. She lived with two of her children and one grandchild in two rondavels.[79] She had access to a just one small, rocky and infertile field. She had no cattle and so had to rely on hiring draught power – she explained that her husband did not leave her with any resources like cattle and ploughs. Unlike other households in Mufiri, Mrs. Matina's had no garden alongside her home.

While wetland agriculture farmers spoke about good nutrition derived from food they harvested from their wetland fields and gardens, dry land farmers like Mrs. Matina spoke of hunger and daily struggles to put food on the table. Mrs. Matina said that she had infertile fields and that she needed better land so that she could improve her farming. From my observations in Mufiri it appeared that farmers like Mrs. Matina, because of their circumstances, were almost always overlooked by project facilitators like the AREX Officer and farming clubs representatives who usually targeted already active and successful farmers, especially master farmers, and on occasion others with land that had productive potential.

In the 2005/6 farming season, Mrs. Matina had ploughed and planted only 0.8 ha of her 2.8 ha field because she had neither inputs nor money to pay for ploughing. She planted only one small piece of land with maize, using seed from the previous harvest rather than the more popular and productive hybrid seeds. She prepared the piece of land that she planted with maize using only hand tools such as hoes and picks, since she could not hire a plough. Her case depicts a case of a vicious cycle of poverty. She earned a little income by working part time on other people's fields, a practice locally known as *maricho in* Shona. The concept of *maricho* has been defined by Chimhowu and Woodhouse (2008: 12) as 'casual agricultural work on others' fields'. It entails doing part time work for someone in their fields or garden to perform a task such as planting, weeding or harvesting crops for minimal wages. Moreover, Mrs. Matina did not have much in the way of remittances to fall back on. Her daughter, a single mother who worked as a house cleaner in Zvishavane town,[80] did send 'small amounts' of money; but Mrs. Matina explained that it was not even enough for the

[79] Circular hut or other building , usually with a conical thatched roof
[80] Located in Midlands Province and situated 100km south of Mufiri wars

upkeep of her own daughter who stayed with Mrs. Matina, let alone sufficient to provide a resource that might be invested in farming.

In the 2006/7, farming season Mrs. Matina was able, using her neighbour's[81] plough, to prepare her fields and plant more crops than in the previous season. But she did that with little help, and was never able to give time to attending Area Farming Meetings or to become involved in any of agricultural maize and fertilizer trials that were ongoing in Mufiri. She was, however, involved in the MCG project; and, having been encouraged to do so by her neighbour Mrs. Sibanda, she had attempted to adopt some of technologies they had seen used in the NGWP, especially contour ridges, in the hope thereby of boosting her field's productivity. She used shovels, hoes and picks to construct the contour ridges. See Table 18 below showing Mrs. Matina's harvested maize from 2003 to 2007.

Maize Harvest from Dry land Farm	
Year	**Tonnes**
2003	0.150
2004	0.132
2005	0.160
2006	0.068
2007	0.205

Table 18: Mrs. Matina's maize harvests from 2003 - 2007

Given such low harvests as shown in the above table, Mrs. Matina said:

> I have been struggling for a long time to improve my maize yields...Since my husband died things have not been the same...as a man he knew how to prepare the land for farming and sourced all the necessary inputs such as maize seed and fertilisers... I would help with planting, weeding and harvesting the crops...now it is a different story...I can hardly get the whole field ploughed and I do not have the money to buy seeds or even fertiliser...we also have a problem of rain, my daughter, ...it has not been raining like in the past...After pondering about the problems I am facing...I have decided to also try the *Ngwarati* contour ridges like the other dry land farmers. They say it improves moisture in the field and one can get better yields...I have nothing to lose in trying what other have learnt from the wetland project.

During the period of my fieldwork, Mrs. Matina had begun liaising with some other dry land farmers from her village who had adopted aspects of the *Ngwarati* technology to help her adopt those same technologies. By the time I left Mufiri, Mr.

[81] Mrs. Sibanda (case study 2)

Mandima (case 11) was assisting her with constructing contour ridges in her field. Mr. Mandima and Mrs. Sibanda offered to help Mrs. Matina firstly because they stayed in the same village and had been moved by her problems. Secondly Mrs. Sibanda said that she was helping Mrs. Matina because as her elders said '*chirerewo chizokurerawo* (look after a person tomorrow they will look after you also)' Mr. Mandima echoed the same sentiments saying that the households in their village were like a family and people helped each other, be it in farming activities, social obligations, financial needs and especially in times of bereavement.

Mrs. Matina's case shows the challenges that some dry lands farmers had to face and that prompted various among them to adopt associated *Ngwarati* technologies even though the technology was intended for wetland and not rain fed farming. Below I present another case study to show how the need to generate income resulted in another rain fed farming household to adopt aspects of the *Ngwarati* technology.

One of the challenges facing dry land farmers was that they struggled to find income generating projects to supplement their incomes from farming – because lack of inputs and erratic rainfall made their farming activities unviable as a means even of feeding themselves, let alone for creating additional income. Unlike wetland farmers who sold vegetables from their gardens throughout the year, most dry land farmers did not have 'all year round crops' either to eat or to sell. According to seven such farmers whom I interviewed, they were able to sell a little surplus maize only after a good harvest when they had enough for home consumption and some surplus to sell. However, in recent years, local farmers reported, erratic rainfall and lack of adequate inputs like hybrid seeds and fertilizers had led to poor harvests and no surpluses to sell to the GMB. This left many households with no or minimal sources of cash income.

Case Study 14: Off Farm and Farm activities – finding a balance

One such farmer was Mr. Saguga who, in 2005, was struggling with a lack of cash income that he might have used to purchase inputs for his rain fed farming activities. Mr. Saguga was born in 1948 and of the *ndlovu* or elephant totem. He married his wife Susan in 1976, and they had five children. Unlike most of the villagers, who were Shona, Mr. Saguga was Ndebele and struggled to speak Shona. Mr. Saguga was

originally from Nkayi district in the Matabeleland Province. As a young man aged 20, he had come to Shurugwi in search of work in the chrome mines where he worked till he was retrenched in 1997. He settled in Mufiri in 1975 and was allocated land in Hwini village. He came to settle in Mufiri together with other retrenched miners after being informed by others they had worked with and that came from Mufiri that a new village had been opened for settlement. Mr. Saguga's household had 3.2 ha of farming land and they were making use of their land to plant maize, beans and groundnuts. Mr. Saguga commented that their land was in a rocky and infertile part of the ward and that he was nonetheless interested in finding ways to improve their household harvests from their allocated land.

Attempting to address the challenge of generating income for his family without having a wage-earning job on which to depend and having no town-resident children to send remittances, Mr. and Mrs. Saguga had initially ventured into brewing and selling beer. All their children were in Mufiri, three still in school and two looking for work.

In 2007 the Sagugas decided to adopt aspects of the *Ngwarati* technologies on their dry land field, in order, they hoped, to boost the land's productivity levels and thus its income generating capacity. As Mr. Saguga explained:

> Life is now difficult…I do not know even where to start but I know we are swimming in an ocean of problems… Over the past years the rains have been scarce. I am not refusing [denying] that we had drought years in the past, we have had them…but now it seems every year is a drought…So our farming activities are suffering…You cannot plan properly as we used to because the rains are no longer predictable… we have been experiencing poor harvests and the maize we harvest is not enough for the family…[In the past] we could sell extra maize and use the money for buying inputs and other things for the family, but now we cannot…I was retrenched about 12 years ago and I was depending solely on my farming activities…. My wife and I brew and sell beer to our fellow villagers so that we can raise money for our upkeep. The money is not enough and, as I explained the other day, we are now in the process of learning about the technology from the [New] Gato wetland project and also try our luck. If we improve our maize yields then we can sell the surplus and generate money for the household.

During some of my several visits to the Sagugas' home, I observed Mrs. Saguga spending much of her time hard at work brewing beer for sale by Mr. Saguga who was responsible for selling the beer. The income they generated that way from the beer sales was used for school fees, medical care and groceries.

Picture 49: Initial processes of brewing beer

For the most part, their beer sales (*ndari*[82]) raised an approximate average of about US$50 per time they brewed – normally about 10 times per year. The beer was sold in small mugs at a cost of about US$0.25 per cup. Local men and a few elderly women would come and buy this beer because it was cheaper than the commercially brewed 'opaque' beer sold at the local bottle store. Mr. Saguga said they held beer sales as many times per year as the sorghum they harvested from their dry land allowed.

But, he emphasised, although they were brewing and selling beer, farming still remained a priority in his life because money from beer sales was not enough to cater for all their household expenses such as groceries, clinic fees, school fees and farming inputs.

Mr. Saguga also claimed that, as a relatively new arrival in the ward and village, and as a non-Shona speaker, he had repeatedly been sidelined when opportunities arose to participate in the various farming-based development projects that were started in the ward. He blamed the AREX officer and various Mufiri local leaders for selecting only prominent farmers for the various projects and thus excluding people such as he. He was thus very happy, he said, that I had selected him and his family to participate in my study as one of my case study sample households.

[82] A local Shona word meaning an instance where a household brews and sells beer to local residents. It is a practice commonly found in communal areas in Zimbabwe.

He said one of the challenges he faced was not being able to participate in development projects such as the NGWP because, by the time he had come to hear about the project, no additional members were being recruited. For Mr. Saguga, projects such as the NGWP gave their members and local people an opportunity to learn techniques that they could use on their own lands as well as in project fields.

Mr. Saguga expressed particular interest in the kinds of water conservation techniques that other dry land farmers were adopting from the NGWP. He said that, given the current challenges dry land farmers such as he were facing, the wetland project offered useful techniques that could be used by both dry land and wetland farmers. He expressed regret that members of the NGWP were abandoning the project that had provided them with maize and other crops, a project he said he had wanted to be part of.

Referring to government's input subsidies for rural farmers, he explained that the lack of continuing government support in their agricultural activities also contributed to the challenges they were facing. His comments in that regard reflected the fact that, directly after Zimbabwe's independence, rural farmers had been assisted with inputs such as maize seed and fertiliser by the government. The Grain Marketing Board (GMB) had provided input loans to most rural area farmers and, after harvesting, these farmers would sell their surplus to the GMB which then deducted the amount of their input loan before issuing the farmers' cheque (Rukuni et al 2005). This arrangement had enabled rural farmers' access to inputs at the beginning of each farming season – inputs that the government subsidized heavily.

However when I started fieldwork, farmers such as Mr. Saguga complained that this arrangement with the GMB had been changed and farmers had had from then on to secure their own inputs from shops or the GMB, if they were available, and they had had to pay cash up front. This became a big challenge for most farmers who did not have the cash to buy such inputs. In 2006 a 10kg seed pack ranged from Z$6 000 to Z$10 000 (at that time US$4.60 – US$7.60) which was expensive for most farmers. At the beginning of the 2006/7 farming season, most of the farmers I observed planting maize were using untreated seeds they had kept aside from their previous year's maize harvest – something that, according to the AREX officer, compromised

the quality and quantity of the farmers' subsequent harvests resulting in a downward spiral in productivity – whether or not the rains were sufficient.

Mr. Saguga also said the reason he was keen to adopt some of the technologies associated with the *Ngwarati* project was because his household's fields were quite infertile and that, despite that fact, he could not expect additional land because there was an arable land shortage in Mufiri – a point confirmed by the sub-chief when I asked him about it: he said that such farmers could not be resettled in other parts of Mufiri because of the lack of arable land to accommodate them.

The fields of most of the dry land farmers with whom I worked were rocky and infertile. And, although I had not set out to explore land issues in Mufiri, the challenges I discovered many Mufiri farmers faced as regards access to arable land made me ponder about Zimbabwe's now infamous land reform programme which I had understood was supposed to have helped alleviate land pressure and land shortages faced by people in communal areas such as Mufiri. During the entire period of my fieldwork, however, I observed only one Mufiri resident, the NGWP chairperson who, as explained earlier, was well connected in ZANU PF circles, and who had been allocated a small farm in one of the resettlement areas created when commercial farmers' land had been expropriated. I was told that he had obtained that land only because he was part of the ruling party district committee and had accessed the land from Shurugwi town after networking with his colleagues in high political office in the district.

Yet the majority of Mufiri's farmers, especially those trying to work dry land fields, were grappling with land shortages and low soil fertility. My concerns about the land problem in communal areas such as Mufiri correspond with those expressed by Chikuvire et al (2006:16) who argued that 'despite the implementation of the controversial land reform program in Zimbabwe from the year 2000, the majority of smallholder farming communities have not benefited and are still in the hostile environment'. Local farmers in Mufiri reported that they knew about the land reform programme and had registered their names in 2001 with local leaders, but that nothing had come out of the registration process.

By the time I finished field work, Mr. Saguga was preparing his land using the *zvikomba* concept based on the *Ngwarati* technology. The case studies described in this chapter show how some rain fed farmers adopted associated *Ngwarati* technologies. In the next section I present data for a project from Mufiri whose members reported how the management style and problems at the NGWP had an effect on the operation of their project. The lessons leant from the collapse of the NGWP proved useful to members of the Mufiri Consolidated Garden Project and how they managed their project.

Case Study 15: Mufiri Consolidated Garden Project (MCG): Making use of lessons learnt from the NGWP.

Not long after the implementation of the NGWP, a number of other projects were introduced in Mufiri, the Mufiri Consolidated Garden (MCG) project being one of them. It was implemented as part of IFAD's initiatives in 2000 that had also underwritten the NGWP. Some of the NGWP's members soon joined the MCG project. During fieldwork in 2007, I was invited by one of my case study sample members to visit the MCG and to observe what they were doing in that project. I gladly accepted the offer although it did mean having to wake up at 4am to prepare and make my way to the MCG project site. This was necessary because project members started watering their gardens around 5am. I arrived at project site around 5:10 am and, from a distance, I saw more than 10 people of the project's total of 60 members already working and watering vegetables. The project's initial funding was from IFAD and the donors had helped the farmers with construction of a small dam along the Musavezana River and a fence surrounding the garden they established there. The sub chief, with the approval of Chief Banga, had allocated 3ha of land for the project from one of the communal grazing land paddocks.

According to the MCG chairperson, its aim was to increase vegetable production for dry land farmers who had no access to wetlands in order to improve their chances of achieving food security and of generating cash income from the sale of produce. The MCG chairperson and committee members oversaw the operations of the garden. The AREX officer was not directly involved in the project but was called in only to give extension services and support when it was needed. She was thus not involved in the daily running of the MCG as she had been in that of the NGWP (see chapter III). The MCG committee was responsible for meetings, opening of the garden gate during the

days and times members were working there and for the security of the consolidated project garden. Members of the MCG project had agreed to work the garden each Tuesday and Thursday, and had access to the garden for three hours in the morning and in the afternoon on each of those two working days. Each member of the project was allocated five vegetable beds and had the right to decide what to plant on his or her allocated land, when to work (albeit within the two days per week) and when to harvest. This individual management style was proving to be a success as individuals strived to have the best garden that would yield the best vegetables, such as onions, various types of leafy vegetables, tomatoes and maize.

Unlike the NGWP, the MCG did not appear to have high levels of conflict, as each member worked their own pieces of land and had total control of whatever they harvested from their garden, even though they were restricted in terms of amounts of time they could spend working there (just two days per week).

Pictures 50 & 51: Members of the MCG fetching water from the project dam, and watering their gardens

All ten members of the MCG that I interviewed said that their project was proving to be more successful in the long term than the NGWP had been since their project was now in its seventh year and still going strong. To them, as discussed in Chapter IV, the NGWP was successful for only four years and then it began to decline in terms of its productivity. They attributed the MCG's success to its principle of individual control of both activities and distribution of benefits.

According to the MCG chairperson, the success of the MCG was at least partly a result of the lessons they had learnt from the disintegration of the NGWP. He said that they had learnt from the conflict that had occurred in the NGWP over the distribution of crops and the cooperative management approach. As a result, he explained, they had decided from the very start to allocate each member their own vegetable beds and expect each member to manage their own production processes and the resulting benefits. The chairperson reported that:

> We were there when the NGWP started and we closely followed its activities as well as its problems...the NGWP was a big project and we were disappointed to hear of the problems that its members were experiencing such as lack of cooperation, tension among members and also friction with the AREX officer...So when the opportunity came through IFAD to fund a garden project in Mufiri, we decided as a group to use the lessons from the wetland project as a guide as to how we would operate our project...we did not want to be affected by the same problems that had ripped the wetland project apart.

From my observations throughout fieldwork, the MCG was proving to be viable and there was minimal conflict among members. At least once a fortnight in 2007 I briefly attended the MCG's Thursday afternoon gardening session and chatted with members. During those times I never witnessed or heard about any confrontation among members. I also noticed that members watered their own vegetable patches and worked exclusively in their own allocated beds; and that some sold their vegetables to others in Mufiri who wished to purchase them.

At least in comparison with the NGWP in its earlier years, and indeed in terms of its constitution, the MCG project had far less requirement for group interaction, planning, decision-making and cooperation. Yet in an almost perverse way the MCG's success is another illustration of a positive spin off from the NGWP in that hard management lessons learnt from the latter had proved to be useful in establishing a modus operandi for the former.

4. Conclusion

Because dry land farmers are dependent on rainfall to irrigate their crops, they are particularly susceptible to the effects of erratic rainfall and to drought, both of which have implications for rural livelihoods (Chirikure et al 2006). According to Ekaya (2007:3), some 'dry lands pose great threats to crop production… yields vary enormously from year to year and crops frequently fail'. Given such a scenario, some farmers, as I have shown in this chapter, became innovative and creative in their

farming methods. Despite the *Ngwarati* technology having been designed for use in wetlands, some dry land farmers were able to benefit from adopting some of those technologies on their dry land farms. Given the harsh environments that some dry land farmers face, innovation may become a viable option for farmers as has been shown in this chapter.

Agricultural technology plays an important role in improving food security among farmers in rural communities across the continent (Reij and Steed 2006). Despite the collapse of the NGWP, it had positive spin offs that trickled down even to some dry land farmers who were neither members of the NGWP nor practising their own wetland agriculture. I have shown that, despite the disintegration of the NGWP, aspects of the *Ngwarati* technology and its associated techniques were successfully transferred to both the informal wetlands and dry land farms where it was proving to provide medium and possibly long-term possibilities for food security. The data that I have presented in Chapters VI and VII also show that some farmers are not passive actors but are, rather, innovators who make the most of development initiatives such at the NGWP. The use of *Ngwarati* technology at household level proved to be a positive unintended individual survival strategy that came out of the collapsing New Gato Wetland Project. Thus the project, despite its collapse, produced some benefits that trickled to some dry land and informal wetland farmers in Mufiri.

VIII: EFFECTS OF THE NEW GATO WETLAND PROJECT ON GENDER RELATIONS IN MUFIRI

> The development process affects women and men differently (Momsen 1991:1)

1. Introduction

The implementation of the NGWP in Mufiri presented a platform for local women to become involved in the local development process. Having shown in the previous chapters the socio-economic effects of the NGWP, in this chapter I show how the project resulted in both positive and negative implications for existing gender relations and the experiences of women. What I mean by gender relations here is that 'complex system of personal and social relations of domination and power through which men and women are socially created and maintained and through which they gain access to power and material resources or are allocated status within society' (IFAD 2000:4).

As I demonstrate below, the project gave women a degree of autonomy, decision-making power and economic independence that they had not had before the project when patriarchal dominance and gender relations had remained largely unchallenged. I show how women's participation in the project enabled them to become more active than previously in the public sphere, and how they gained confidence to challenge the authority and power of men, and thereby to redirect and reshape gender relations within the project and in turn at community and household levels. However, I also show that, in response, some men attempted to intensify their positions of dominance and authority within the project and that that in turn minimised the extent to which gender relations were indeed changed in favour of women.

I also show how, with the collapse of the project, there was an erosion of some women's acquired benefits, albeit that some did manage to hold on to their autonomy and the various opportunities to exercise power that they had gained. I explore the reasons some women lost their benefits whilst others held on to them. To do that, I have been obliged not to treat women as a homogenous category but rather to show how individual women within the project responded to the development project, each

as an 'active agents' who began to challenge the status quo and hence to have the effect of shifting gender relations more generally (c.f. Whitehead & Kabeer 2001).

My goal is thus to show that, while the implementation of the project introduced changes in gender relations, it did not completely alter gender relations in Mufiri ward. I aim to show, rather, that it presented new challenges and slight shifts in existing gender relations. Those are best illustrated by descriptions of the experiences of women from the informal wetlands and dry lands and comparisons of those with the experiences of women in the NGWP itself.

The inclusion of women in the NGWP came at the time when many development practitioners had adopted a Gender and Development (GAD) approach and were thus advocating development projects that were gender sensitive (Rathgeber 1989). The goal to involve women in development projects was mainly in response to various feminist critiques of the development processes that had occurred in many third world countries (Rathgeber 1989; Kabeer 1994; Scott 1995; Sen & Grown 1987; Buvinic *et al* 1983; Parpart *et al* 2000). The plight of women in these contexts first came to light when Ester Boserup (1970) highlighted the kinds of impact development projects had had on women. As Kabeer (1995: 6) has pointed out, Boserup argued that 'colonial governments and post colonial governments had systematically by-passed women in the diffusion of new technologies, extension services and other productive inputs because of their perceptions or misperceptions of what women did'. Boserup's (1970) work gave rise to a number of feminist interventions across the globe which eventually resulted in what have come to be known as the WID (Women in Development), the WAD (Women and Development) and the GAD (Gender and Development) approaches, theories, policies and programmes. The UN International Decade for Women (1976 – 85) simultaneously also focused on the role of women in production (Porter *et al* 1999:2).

The WID perspective, which was the first to be formulated in response to Boserup's critique, shed light on women's development needs and particularly the need to have a clear picture of the work of women and to provide them with increased opportunities for education and employment (Overholt et al 1984). However, the WID approach tended to occupy itself with women as producers and did not focus on their contribution in terms of domestic labour (Parpart *et al* 2000:274). The WID

approach was criticized primarily for not addressing fundamental questions about women's subordination, for ignoring the impact of global inequalities on women in developing countries and for treating women as a homogenous category, especially since it did not acknowledge issues of race and class (Parpart *et al* 2000).

The WAD approach, on the other hand, focused on women's projects in ways that isolated them from men – in a bid to protect women's interest from patriarchal domination (Rathgeber 1989; Parpart *et al* 2000). The women-only focus of WAD made it difficult to use as either theory or approach, precisely, its critics have argued, because women's roles and activities cannot in practice be isolated and their interests treated in isolation from those of men. Moreover, like WID, WAD also downplayed the differences among women, particularly those manifesting along racial and ethnic lines (Rathgeber 1989).

The main limitations of both the WID and WAD approaches stemmed from the fact that they both focused on women in isolation and not in relation to other aspects of their lives like social relationships and family ties (Kabeer 1999: vii). It was only through GAD that the use of gender was conceptualised and began to be used in the analysis of women and men. According to Holmes & Slater (2008:27), the central argument of GAD is that 'economic and social development cannot happen without addressing inequalities of gender, race, and class'. GAD approaches did not focus on women in isolation but focused instead on gender relations in general (Young 1997; Whitehead 1979).

These various approaches and theories on gender had an impact on development processes. The inclusion of local women in the New Gato Wetland Project (NGWP) came about as a result of numerous factors that probably included these various approaches as they influenced donor policies, gender policies in Zimbabwe and the influence of various NGOs concerned with women's empowerment.

In Zimbabwe, women constitute 52% (CSO 2002) of the total population and in the 1990s there was consensus from various sectors that women were still being sidelined in power and decision making at both national and sub national levels – hence the call for the inclusion of women in all sectors of the country (EISA Report 2000: 98). This call and the realisation that produced it had also resulted in the launching of a

National Gender Policy by the Zimbabwean government. The policy aimed at 'promoting equality and the advancement of women and men in all sectors' (EISA Report 2000:98). The passing of the Legal Age of Majority Act (LAMA) in December 1982 also enhanced the recognition of women in Zimbabwe (Parpart 1995). The Act gave women the 'legal right to own property or enter into a contract, including marriage without the consent of a male guardian' (Adams 1991:163). It meant that women were no longer regarded as minors as had been the case under customary law and culture (Gaidzanwa 1988). The setting up of the Ministry for Community Development and Women's Affairs (MCDWA) was also a turning point for Zimbabwean women. The ministry's mandate 'was to protect women's interests by lobbying for the removal of discriminatory laws, mobilization of women in development projects and literacy campaigns' (Partpart 1995: 7).The implementation of the NGWP presented a new dimension to existing patriarchal attitudes and gender relations in Mufiri. As has already been shown in Chapter III, the NGWP included both men and women as individuals among its members, and in the running of the project. Below I discuss in detail patriarchy and how it manifested in rural Zimbabwe villages such as Mufiri. In the other sections of this chapter I discuss how the NGWP provided opportunities for women to at least partly break free from patriarchal constraints, a point I will illustrate using various case studies.

2. Village-level gender relations

As shown above the national gender policy and LAMA were measures to help women whose status and roles had also been shaped by patriarchy –a social system, also found in Mufiri, whereby the father or eldest male, is the head of the household and is assumed to have authority over women and children in that household (Gaidzanwa 1988). Patriarchy also refers to a system of government by males and the dominance of men in social and cultural system. Hartmann (1976:138) has also defined patriarchy as a 'set of social relations which has a material base and in which there are hierarchical relations between men and women...which enable men to control women'. McFadden (2003) has argued that in the African context patriarchal power entails the silencing and suppression of women including the control of their bodies. Various definitions of patriarchy show that it is a social system that centres on male control of most aspects of women's lives and actions (Sharp and Spiegel 1990; Bourdillon 1976; Gaidzanwa 1988). In the Zimbabwean context, Bourdillon (1976) in

his study of the Shona people documented how patriarchy played a role in shaping gender roles and relations. His analysis of patriarchal power and the subordination of women was evident and reflected in gender dynamics in Mufiri.

The lives of women in rural areas such as Mufiri have also been influenced by patriarchal authority. The plight of Zimbabwean rural women in relation to patriarchy was reported by Parpart (1995: 8) as follows:

> At independence, most African women in Zimbabwe worked in the rural areas as unwaged family workers on small holdings or in the communal areas, receiving little reward for their work. Men generally controlled the sale of produce and thus the little money that came into the household. This situation has changed little for rural women. They continue to do much work, receive little training and control very little land.

The involvement of women in the NGWP meant that female project members had to contend with deeply entrenched patriarchal beliefs and practices. During my fieldwork I was able to observe the extent to which patriarchy and embedded socio-cultural practices shaped the position of women both at household and ward level in Mufiri. Men dominated in most public spaces as they did most committees, be they development or political committees. I discuss briefly one example of the Area Farming Association in Mufiri to shed light on how patriarchy manifested itself in Mufiri.

The Area Farming Association gave farmers in Mufiri a platform to discuss and share ideas about farming issues. Each farmer was supposed to belong to a farming club in their village, which then reported to the Area Farming Committee. The Area Farming Committee reported to the National Farmers Association. At the time of my fieldwork there were 36 farming clubs in Mufiri. The Area Farming committee held meetings at least once every month. The area farming meetings were sometimes held twice a month, especially towards and during the farming season. All farmers, the AREX officer, government and NGO officials working with farmers in Mufiri ward were supposed to attend. This was where all information pertaining to inputs, farming projects, field days, marketing of crops , reports on various farming and research projects, extension service reports and also future farming activities were discussed. Farmers who did not attend these meetings sometimes lost out on valuable information.

Visitors to Mufiri were also invited to attend such meetings. When my thesis supervisors came to Mufiri, they also attended one of these meetings after being invited by Mr. Mandima (see case study 13) who was the chairperson.

During such area farming meetings, one could easily recognise the unequal gender relationships. Firstly, the Area Farming Association chairperson was a man and the secretary was a woman. All the meetings were chaired by the chairperson with the woman secretary only reading the previous meeting minutes but making no concrete decisions. She left everything to the chairperson. Secondly, the judging committee for farming competitions comprised only men meaning that women's interests were not represented there – a factor that, to a large extent, was reflected in most village committees.

During Area Farming Association meetings, women sat on the ground to one side and men on benches to the other, and women did not usually contribute to the discussions. In all of the more than ten such meetings I attended, I observed women just whispering and giggling to each other and, when asked to contribute, they would simply say they agreed with everything the men were saying. If nominated for any position, the women would openly refuse and say that men should occupy such roles. Since, as a woman myself, I had always to sit with the women, I was able to hear from their whispering amongst themselves that they did have concerns and points to raise. But I also soon came to recognise that they would rather whisper among themselves than object to the men's contributions.

When I discussed their behaviour with women during informal discussions, one woman said that 'it is not proper for a woman to be very vocal and challenge men openly at meetings, *hachisi chivanhu chedu* (it is not part of our [African] tradition) for women to behave as such in public spaces'. Others among them concurred saying that women felt uncomfortable to be seen talking and raising issues in a public meeting where most of the village men were present since doing that did not portray one as a submissive woman.

Eleven men I interviewed agreed that it was not part of the tradition for women to be vocal in public spaces. One male farmer said that this did not, however, hinder some women participating in public spheres, such as in development projects and politics.

As he said ‘women in Mufiri are moving beyond the home boundary and they are becoming involved in all areas in Mufiri...we now have for the first time a woman councillor...as men we sometimes feel that a woman’s place is in the home.’ The concerns of some men as shown by this quote stem from their perceptions of women’s roles and norms governing women’s behaviour. Gaidzanwa (1988), in her work on women and access to land in Zimbabwe, also comments on women’s roles and the expectations held by men of women. She also explains how patriarchy has resulted in gender inequality and submission of women to male household heads. Gaidzanwa (1988) points out that such gender inequalities stemming from patriarchal structures and authority affect women’s access to land and participation in public spheres as men continue to view women’s roles as being confined to the domestic spheres. For her, such patriarchal tendencies affect women’s participation in the public arena and in decision-making processes within and outside the household. She further argues that most Zimbabwean women, because of their socialization, continue to live within the confines of patriarchal authority and existing societal expectations.

Picture 52 and 53: Picture was taken during one of the Area farming meetings. The sitting arrangements show men in leadership positions and women as listeners. The benches were for people in local leadership who were mostly men.

Despite the election of a woman councillor in Mufiri, the role of women in local politics and projects remained minimal. The subordinate role of women in public places such as the Area Farming meeting was much the same in Mufiri as has been described in a comparative study of women and political participation in various African contexts by Hirschmann (1991) who reports that, in Malawi, women were

more observers at local project and political meetings than they were main speakers or contributors to debate. Hirschmann also shows that women councillors there also had to grapple with the attitudes of men in local politics. Similar findings have been reported from India too. In a study of women in irrigation associations in Tamil Nadu, Dasthagir (2009:402), reports that women were reluctant to speak at project meetings and suggests that the reason for 'women's non participation may include their lack of skills, training and experience in participating in male dominated public forums'. I would add, from the evidence from Mufiri, that one of the reasons for women's lack of participation is the persistent patriarchy and societal expectations that women should not to be highly vocal in public spaces.

Having given background information about patriarchy in Mufiri, below I discuss in detail the effect of the NGWP on gender relations in Mufiri. I use various case studies to illustrate how some women were able to at least partly break free from patriarchal constraints.

3. Experiences of women in the NGWP: Benefits and challenges

The experiences of women in the project varied, as was the case with men too, but there were certain benefits that were enjoyed by all the members, including women. In particular for women, the project presented an opportunity for those women who became members to participate in the public domain. Women who became members were among those who had attended the Farming Area meeting at which the project was first discussed. Other village women who were absent on that day lacked information about the new project and this constrained some of them from joining the project. According to the AREX officer, membership was on a voluntary basis and, as it turned out, women were more willing to participate than men for the primary reason that the project centred on food production and income generation.

According to the AREX officer, male project members were few because, from her experience, men were more interested in selling crops rather than in doing the actual work in the gardens and fields – reflecting an older pre-colonial attitude about the respective roles of women and men in agriculture and herding (Weinrich 1975). Most of the women who had joined the project reported that, before the project's implementation, most of their work had been confined to the domestic sphere where

they carried out housework and subsistence farming activities. During my fieldwork, I was able to observe much of the kind of work that was carried out within the domestic sphere by men, women and children. For women, this work involved tending to small animals and livestock, household chores like cooking, fetching water, looking after children and farming activities in the household's dry land fields and/or informal wetlands.

An important aspect of the NGWP, and one that established a degree of women's autonomy was that women were allowed to join the project as full members in their individual capacities as village adults. According to the AREX officer, the NGWP was the first 'combined project' – that is one that included both men and women.
The AREX officer explained that she had been involved with the recruitment of members, and she reported that women did not need their spouses or other male relatives to join on their behalf. They were able to join in their own right. This proved to be a major breakthrough for local women who had not been involved as full members in the few agricultural projects that had been implemented in Mufiri. In these projects, women participated, but only as proxies for their husbands or fathers.

The AREX officer and local people said that the NGWP was the first big agricultural project to be introduced in Mufiri. Before the project, there had been a grazing scheme project whose members were all men. There were also Ministry of Agriculture and Rural Development public works projects, these too involving men who were needed for building roads and digging boreholes. Other projects were the AREX land use planning and the Master Farmer programme in which farmers were trained at an individual level but not at a project level, which meant that at least some women could participate and become master farmers; but they had still thereafter to apply their new skills to land which ultimately their husbands controlled. The provision that women could become full NGWP members in their individual right was thus a good development for those women who took up the opportunity. According to Mrs. Matohwe who was a member of the NGWP from its start:

> Before the project started, a meeting was held which we attended. The idea of the project was discussed and, to our surprise, this project allowed women to join on their own. This excited most women [attending that day] because we could use our own *zvitupa* (national identity cards) to register for membership without using *zvitupa* of our spouses. We were told that, as women, we could fully participate in all aspects of the project.

According to the project's membership rules, however, only one person per household could join. This meant that, in cases where a woman became a member, no man in her household could join – suggesting that, despite the project planners' intentions to provide opportunities for women, they still imagined households as in some sense homogeneous. Interestingly, and possibly because of the rule limiting only one adult per household to become a NGWP member, it had required a degree of subterfuge on the part of women to be able to join the project and thereby to benefit from some sense of autonomy in the project. It was described as follows by Mrs. Sibanda (see case study 2) in an FGD held with women project members:

> Usually men send women to go and attend most ward meetings and then we come and give them feedback. In this case, after attending the meeting, we told our husbands about the new project and told them that since we could also register, we would just go back and register on behalf of the family (women laugh) and they did not need to worry about coming to register (more laughter)… So we quickly came back to register with the AREX officer and we became full members. Some of the men then realised later that they had no say in the project because officially they were not members (women laugh), [while] we were (more laughter).

The membership policy of the project also meant that widows and single mothers could join the project, something that had itself previously been difficult because membership of other projects had been open only to households as represented by the male household heads and through their identity cards. That said, however, such a woman's membership precluded her adult sons or daughters also joining if they lived in her household with her.

3.1 Shifting or maintaining gender relations in the New Gato Wetland Project

The presence of women in the NGWP and in its project committee introduced a new challenge regarding gender relations both at project and household level. The involvement of both men and women in the project meant the involvement of women in decision making and the exercise of power and authority in a public space – the project – something that was previously the domain of men only. Moreover, it overflowed into other public spaces in the village too. For example, women became involved in local government structures in Mufiri such as the VIDCOs and WADCO. In terms of control and decision making in the project itself, three women made it onto the project committee from 1998 to 2007, including one whom was the chair for two years from 2001 to 2003. Table 19, which provides a summary of Table 4, shows

the gender distribution of members of each of the three wetland committees in place from 1998 to 2007.

Committee Position	**Period of Committee's existence**		
	1998 -2000	**2001 -2003**	**2004 -2007**
Chairperson	Man	Woman	Man
Vice Chairperson	Man	Man	Man
Secretary	Woman	Woman	Woman
Treasurer	Man	Man	Man
Committee Members	Woman Man	Woman Man	Woman Man
	4 men; 2 women	**3 men; 3 women**	**4 men; 2 women**

Table 19: Gender distribution of members in the NGWP project committee 1998-2007

The presence of women in the project committee, in various positions, including for one period as chairperson, brought about a change in gender relations more generally as it provided opportunity for men and women to have to interact and share ideas on the operation of, and on various activities pertaining to the NGWP. Case study 16 below shows some of the ways this influenced gender relations in the NGWP. Both men and women members had to follow the direction and management of the woman chair between 2001 and 2003.

Case study 16: A Woman's reign of authority

As mentioned in Chapter III, Mrs. Zhou was elected as chairperson of the project committee for three years after the previous chairperson had passed away. According to one member of the NGWP, Mrs. Zhou was selected on the basis of her capabilities rather than because of any attempt at 'affirmative action'. Mrs. Zhou was a 67-year old retired teacher and a master farmer. Some project members attributed the success of the NGWP during the first phase, including the period when she was vice chair, to Mrs. Zhou's good leadership and farming skills. She was also profiled by SDARMP as a skilled and successful farmer who had successfully undertaken trials for intercropping maize and cow peas and *Bana* grass and *leuceana* as well as trials with maize variety comparisons, manure treatments and applications, soil conservation and urea treated maize stovers (SDARMP Report: 2002).

Mrs. Zhou was able to use her farming and educational skills in the NGWP where she partially led the project in her capacity as chairperson. Moreover, during her tenure in that office, she brought about a shift in gender relations in terms of power and decision-making in an area that had previously been the domain of men. Her occupation of the chair meant that major decisions within the wetland were made via a woman. According to Mrs. Zhou:

> This was a challenging position for me because I had to lead men, and even some powerful men who were part of the wetland project. I could tell sometimes that some men were not happy to be led by a woman, but I chose to overlook that aspect and concentrate on my duties… Even in the committee, you could feel the power struggles as some decisions were hotly debated and contested by male committee members.

The case of Mrs. Zhou shows that the NGWP brought about a short but telling period of change in gender relations and the role of women in development projects, which had previously all been headed by local male villagers. Before the NGWP, the only contexts in which women had held chairperson positions was in women-only clubs. Women NGWP members commented that they had preferred the years when Mrs. Zhou was the chairperson because she understood them and had given them the opportunity to have their voices heard in the NGWP. Mrs. Sibanda (see case study 2) explained 'the chairwoman gave us the chance to be heard in the project... as a woman she understood us and consulted us...something that made us feel as people that also mattered in the project.' Other female project members said that Mrs. Zhou had ensured that women were not sidelined or discriminated against within the wetland project. For example, one woman described how during wetland meeting discussions, Mrs. Zhou would ask female members to give their opinion over issues such as planting dates, labour matters and harvesting. According to other women, her ability to ensure women were not sidelined was something Mrs. Zhou had learnt to address during her years as a school principal when equality between female and male teachers was being advocated by the regional education officers.

The following case, of a woman member of the project committee, illustrates the experiences of women in the NGWP and how those in turn revealed how gender relations were experienced within the confines of the project itself.

Case study 17: Social capital as a tool

Mrs. Makoti was the project secretary from the inception of the NGWP and for the whole period until and including the point when I completed my fieldwork. A 60-year old widow who had previously been employed as nurse aide, she lived alone alongside her *combo* store (selling groceries and liquor, including a bar) at the ward's small shopping centre, near to where the AREX officer lived. With her strong personality and her influence derived from her status as a shop owner, Mrs. Makoti commanded much local respect. Most local men, including those who were members of the wetland project, regularly purchased the commercially brewed beer she sold at her bar, itself a social meeting place for many local men. The success of her business was reported by some members as the reason why most people had voted her onto the committee. As a woman, Mrs. Makoti was already well established in the public domain and she extended this social capital to the NGWP where she was able to influence decisions and play an important part in the operations and activities of the NGWP. For Mrs. Makoti

> sometimes as a woman in the committee you needed to make your presence felt and also contest some of the decisions by men... For example, in 2000 the AREX officer organised for wetland members to visit another wetland site in Guguguru... the problem came when it was announced by the AREX officer that only 15 members could be accommodated in the small mini bus that was going to take people to the site... the male members prepared a list of members who were going to go on that trip... to my surprise it had only three female... I openly told them that it was not going to work and I challenged them with the support of the other female members... In the end eight women and seven men went for the trip ... I was happy because these men thought that they could call the shots... but I knew that we had to fight with them and be involved in decision making in the wetland and not be sidelined as women.

The presence of women as full members of the NGWP and their assertion of their status as such full members meant that men had to accommodate and deal with women in a public space, the kind of space which had previously been the domain of men only.

What Mrs. Makoti's case shows is that the project committee was a gender contested terrain with women having to make their presence felt through participation and assertiveness in decision making. The cases of Mrs. Zhou and Mrs. Makoti show too how the presence of already empowered and independent women in the project

committee was instrumental in balancing the power of strong patriarchal minded men in the NGWP committee.

3.2 Women Project Members: Roles in shaping and redirecting gender relations

It was not, however, only women members of the committee but other women members of the project too who played an important part in shaping and redirecting gender relations in the project. Indeed, some of them represented 'powerful voices' in the NGWP, voices that could not be easily silenced and sidelined even though most women were relatively silent. I observed that most women did not say much during the wetland members' meetings that I attended; but, as I became close to them, I discovered that despite that silence, women still spoke, and their views and concerns were made public or open through the few more powerful women, even though they were not all committee members. These powerful women were thus the 'mouthpieces' for the majority 'silent women'. As field work progressed, it became apparent that women had their own informal discussions about their concerns outside of the more formal members' meetings and that these were then aired by the 'mouthpieces' whenever an opportunity arose, either during such meetings or when members were carrying out various activities in the wetland.

I soon realised too that these mouthpieces were not just any women; rather they were women project members of already relatively high social and political standing in the local arena. Three women of the 19 female members of the project in 2006 stood out as such mouthpieces; Mrs. Gumbo, Mrs. Mutsa (case study 1) and Mrs. Chihera (case study 3). Mrs. Gumbo was the wife of the headman of the village in which the wetland project was situated. Mrs. Mutsa was the wife of the local councillor during the period before the election of the female councillor as described in chapter V. above and also a member of the local chief's family. Mrs. Chihera was a relatively well off widow who was receiving a pension from her late husband's estate. These women, because of their social and political standing, did not fear to make their opinions known amongst other members of the project, including the men.

They were thus able to stand up for the rights of women within the project, to negotiate with and contest male power, authority and dominance. One incident that stood out occurred during fieldwork during the 2006 maize harvest.

> We had been working in the wetland, harvesting maize for about four hours and it was hot. Many of the members who were present were now tired and hungry. I was also tired, hungry and thirsty. When members who were mainly women indicated to the workers' committee chairperson [a man] that they were tired and wanted to go home and cook for their children who were at school, he refused. A group of four women approached the chairperson and asked him to allow them to go home. Two of these women were among the three female members I later identified as the 'mouth pieces' Again the chairperson refused and asked them to help the other members who had not finished harvesting maize on their allocated ridges. Despite the chairperson's refusal, these two 'mouthpieces' went to empty maize from their sacks and proceeded to go home, defying the orders of the workers' committee chairperson. Members were only allowed to go home when the third 'mouthpiece' told the chairperson to consider the request of members to go home because they were tired and it was hot. With that, the chairperson announced that the wetland members could go home and asked them to come back the next day to finish the harvesting.

The above incident shows the different levels at which women negotiated their way in the project and how they dealt with patriarchal attitudes and the asserted authority of male members.

4. Men's Experiences and Perceptions of Gender Relations

Male project members of the NGWP had mixed feelings over the involvement of women in the project. Although most of the wetland project's male members concurred that the involvement of women in the project was a good thing, they said that they had some areas of concern. According to one man, the main advantage of including women was that the project included women such as widows and single mothers who had previously been left out of such projects because they were in households that suffered the absence of a male household head to represent them and, as a result, they had been left out of most development projects that had come to Mufiri Ward. Another man said that involving women had meant that they could bring their farming knowledge and skill into the project, like the case of Mrs. Zhou who was a master farmer and contributed significantly to the project through her leadership. Yet another male project member explained that 'the wetland project just showed us that the time had come for women to be involved with us in all areas of life.'

Yet, despite some men acknowledging the advantages of involving women in the wetland project, other men said that they felt that their position was being challenged

by women's full and equal membership alongside their own. Various male project members, including those on the committee, commented to me during interviews and FGDs that they had had to make adjustments to the ways they worked and reached decisions, as they were used to having men only leading project committees in Mufiri. None of them had previously been involved in a project headed by a woman or in one which heavily involved women in its membership. In other projects and public spaces, they pointed out, decisions were made mainly by the males in leadership position on behalf of the women. According to Mr. Dube, the project vice chairperson:

> The wetland project made history in Mufiri by having a woman chairing a development project for three years and for having women as members in their own right….It was a good thing to involve both men and women in the project …..The truth is: most of the male members had some adjusting to do because at home you are the head and then you come to the wetland and a woman at that time was leading the project and we were also answerable to the other women members. We had to treat them as our equals …. We could also not just impose on them as they were full members. It was not easy at first but as the project progressed we learnt to work with women and to take into account their concerns and contributions.

Mr. Dube's comments show how men were relating to women in the project. Another male project member said that men had had to become more cautious not to sideline women in making decisions and had tried to treat women in accordance with their new autonomy as project members. He said that when the project started, male project members were avoiding and ignoring some of the women's contribution in decision making. Such a stance came to an end when female project members threatened to stop providing their labour for project activities if their concerns were not taken into account when decisions were being taken. After the incident, he said, male project members began to make an effort to include women in all aspects of the project, and to do so as equal partners. In contrast, another man commented that he felt that women were now stepping on their (men's) toes as they challenged them and also made their presence felt. He said

> The place of a woman is in the home. …it is only a man that can wear a pair of trousers and not the woman and, with the wetland project, even the women were wearing trousers, this created problems both in the home and in the villages…In the project some women would insist that we had to listen to their views when we were planning wetland activities...it does not work that way.. at home it is the man that decides what's good for his family.

Female project members were perceived by some men in the project to be encroaching on their male power and authority. According to one such man, some men felt threatened and, in response, 'they tightened the position as household heads and village adult men'. One male project member explained that

> After my experiences with female members in the wetland project...I told my wife not to be influenced by some of the women from the project who were fighting to make decisions with males...I reminded her that in our tradition as well as the bible – males were the head of the household...I made sure that I kept a close eye on my wife because I did not want trouble in my home over my authority as the head.

The involvement of women in the NGWP resulted in a few women challenging patriarchal attitudes and authority of men in Mufiri, sometimes on behalf of other women which in turn gave those others sense of their own autonomy or independence.

5. Women as providers at household level

The involvement of women in the NGWP resulted in their autonomy, at least in relation to how they could utilise their harvest allocations. During the initial years of the project, as has been shown in Chapter IV, bumper harvests were experienced and members were given allocations from the harvested crops such as from maize, rice and wheat. These allocations meant two things for most of the women who were members of the NGWP. Firstly, they meant that women became providers for their households, a role most men had held exclusively over the years; secondly, it gave women a sense of economic autonomy. In this section I present the various ways female project members benefited from the NGWP and how such benefits helped women in moving towards being autonomous.

Women project members gave accounts of how they were able to use their allocations from wetland project harvests to play a big role in providing for the sustenance of their households. This point is illustrated by the case of Mrs. Mutero

> The wetland project helped us as a family, especially when my husband was retrenched from ZISCO[83] in Shurugwi where he had worked for 14 years. We had just heard rumours that men were being laid off from the mines and other companies, and some of the local village men had even returned to Mufiri. I kept praying that my

[83] Zimbabwe Iron and Steel Company.

> husband would keep his job at the mine…. On radio, we were hearing of the programme and I remember one of the adverts was saying *sunga dzisimbe* (tighten your belt/knot) meaning ESAP[84] would also bring hardships for the people. One day, as I came from the field, I found my husband at home, and I knew it must be the case of retrenchment and indeed it was…. I was worried as we depended on him for our groceries and money…. However, after the first wetland harvest, I found myself with extra harvest from my allocation. Even my husband was amazed at what I had brought home…. We had surplus and I managed to sell some of this surplus and used the cash for school fees and I bought some local chickens to keep at home.

Most also said that, because they were the ones that brought the 'harvest' into the home, it was they who had control of it on how best it could be used. They added that, being able to do that gave them a sense of economic independence, especially since it allowed them to decide whether or not to sell the surplus and, if they did, what to use the money for. Various women proudly showed us the chickens they had bought, the children they had paid school fees for and whatever wares they had bought using the proceeds from wetland harvest sales.

Picture 54: Some of the chickens bought by female project members from cash generated by project harvest sales

[84] An Economic and Structural Adjustment Programme that was supported by the World Bank. ESAP sought to transform Zimbabwe's tightly controlled economic system to a more open, market driven economy Available at http://Inwebao.worldbank.org (accessed 12 May 2010)

Picture 55: A wetland member proudly showing plates she bought and her son she paid school fees for from proceeds of wetland harvest sales

Another female project member said ‘as a woman, I had my own source of crop yields, from my own initiatives alone without the help of my husband…. It was not easy for my husband to tell me what to do because I was the [NGWP] member and it gave me the power to decide what I wanted to do with the harvest’.

However, there were also cases we heard of where some women’s husbands tried to undermine their wives’ new found autonomy and sense of economic empowerment. One woman spoke of how her husband insisted on combining her wetland project harvest with that which the household obtained from its own dry land field so that the woman could not control the wetland project harvests. Once the harvests were combined, especially when it came to maize, it became hard for the woman to sell or in any other way even control the portion from her wetland harvest allocation. However the woman also said that she had managed to maintain control of her wetland wheat and rice harvests, something that was made possible because they were not producing such crops on their dry land fields. But, as these instances suggest, wetland harvest allocation, at least in some households, became a contested terrain that had a significant gender dimension to it.

6. Other Positive Spin Offs from women's involvement in the NGWP

Despite the fact that the economic benefits for women from the NGWP lasted for only a short period after it had been implemented, it did also open up avenues for some women to recognise how they might maintain their new found role as direct providers for their households. Below I discuss selected cases of women who used the NGWP to pursue economic activities that continued to improve their economic status, even after the project had collapsed. The cases I discuss show that positive spin offs from the NGWP were not only realised in the area of farming, as has been shown in Chapters VI and VII, but in the area of gender relations and the role of women in the sustenance of their households too.

Case study 18: Chiriya Rotating Credit Association

Before the implementation of the NGWP, women in Mufiri interacted through various clubs such as knitting and cooking clubs where women came together to teach each other various handicraft skills. These clubs were not income generating clubs but they offered women the platform to learn new handcraft skills. The NGWP presented women from the different villages of Mufiri with another platform to interact, share ideas and form income generating clubs. A spin off of the NGWP was that women began to form income generating clubs instead of social clubs such as the ones described above. One such club was the Chiriya rotating credit club, which was formed by ten women from the NGWP.[85] Such rotating credit clubs were locally known as *kufusha mari* (saving money). The clubs were voluntary and were devised to assist women with few resources to be able to provide for themselves and their families. According to Buijs (2002:27) a rotating credit association (RCA) is defined as 'an association formed on a core of participants who agree to make regular contributions to a fund which is given in whole or in part of each member in rotation'.

Members of the Chiriya rotating credit club lived in Chiriya village, alongside the NGWP site. Members of the club included former and current members of the NGWP. One of the club members said that, after 2003, the project was experiencing low harvest and conflict and so they decided to come together and form a club. The aim of the club was to help them generate income for their families so that they would

[85] The club included previous and present wetland project members

close the gap that was opening up because of low productivity in the NGWP. Members of the club initially made monetary contributions from their personal savings that had accrued from various sources such as monetary gifts from spouses, remittances, involvement in the NGWP and selling of grain and vegetables. This meant that a particular type of woman could join such a club, the kind of woman who had already managed, by some kind of subterfuge or negotiation with her husband, to create a means of generating some income independently and who then invested some of those earnings in the club. It effectively though not in principle excluded women who had no such means of creating personal savings.

The members used their monetary contributions to loan to members of the club who returned the money with an interest that was set at a fixed proportion of 10% of the loaned amount, to be paid at a date negotiated between the borrower and the Chiriya RCA.[86] The club chairperson kept a credit roster and each month one member was given priority to borrow money although, if they did not need the money, other members could borrow the money. The interest was then distributed quarterly to club members.

Every month, the ten women met at one member's house for their monthly meeting. The host was supposed to cook a meal or prepare tea with bread or cake or scones and other members would come and buy the food, and they then ate as they met. Each member had an opportunity, although in a small way, to generate income from selling these meals. During fieldwork, I attended such an event at Mrs. Mataruse's house and it was indeed a social event.

Upon my arrival, I could tell she was very busy and I understood why – she was racing against time to prepare for her visitors and I had to try hard not to be in her way. Observing activities as the preparations ensued, I noted that effort went into the work required for hosting such an event, from cleaning the house and the yard, and cooking the food that the host was making available to sell to fellow club members. Mrs. Mataruse said that she had to prepare her house for the visitors because, when the other women came, they would be quietly assessing her standards of cleanliness

[86] The inflation rate in Zimbabwe in 2006 was 1042.9%. (Available at http://news.bbc.co.uk/2/hi/business/4765187.stm - Accessed 2 January 2010) The 10% interest rate was effectively nominal because, after even a few days the purchasing value of the loaned amount would have fallen considerably more than would have been gained by 10% interest paid over those few days.

and order. She also took time to prepare rice, chicken and soup, and she cooked mixed dried maize, cowpeas and peanuts to serve as a snack.

She had also made a traditional drink made from maize meal, locally known as *'mahewu'*. This drink is prepared over two days as it has to be given time to ferment. She explained that she would also make tea when her guests arrived. She brought out her best porcelain plates and tumblers. Mrs. Mataruse had the wares to show off to her friends and good knowledge of setting up for the day.

By two in the afternoon, the women started arriving, each one dressed up in her 'special' dress. As we waited for the meeting to start, one woman explained to me about the structure and operation of their club. The Chiriya club had a chairlady, a treasurer and a secretary. The women spoke of how they had learnt of these committees, positions and roles from the NGWP. These had been clearly outlined in the NGWP constitution.

The meeting began with a prayer by one of the women and it was followed by a song and then a welcoming address from the chairlady. The treasurer gave the financial report and afterwards those who had to repay their 'credit loans' were given the opportunity to pay back. After that, the member whose turn it was to borrow money was given the opportunity to do so. After borrowing the amount she needed, other members were invited to borrow the remaining money. Two club members quickly indicated that they needed the money, which was to be returned at the end of the month with an agreed amount of ten percent interest added to the loaned amount. Women used the money from the club mostly for buying household groceries, paying medical expenses and, for some, to finance their own personal income generation projects such as sweet and basket making. In the next section I discuss in detail one such project which entailed making and selling of sweets.

After all the financial deliberations had been concluded, the host for the month served her meal, which was sold at about US$0.50 per plate and the *'mahewu'* at US$0.25 per cup. Women from the club spoke about how the NGWP had brought them together and how it had acted as a social forum where they discussed their problems whilst they attended wetland activities, and that this had seen the birth of projects such as their rotating credit club.

Picture 56: Two club members counting some of the collected Zimbabwean dollars in the form of bearer's cheques that had been introduced by the Reserve Bank of Zimbabwe.

Picture 57: Chiriya rotating credit club members

Rotating credit associations (RCAs), such as the one described above, have been documented across Africa (Grown & Sebstad 1989, Buijs 2002). Poor women have used such savings schemes to generate income to 'purchase food, shelter and clothing' for their households (Grown & Sebstad 1989: 941). RCAs may be viewed as one of the survival strategies that women in poor resource settings use in order to save and mobilise income for their families. Buijs (2002), in a study in South Africa's Eastern Cape, reported how poor women joined various rotating credit schemes in a bid to save and generate much needed income for their struggling households. She

reports too that some of the income was used to start other income generating projects.

Such was also the case with Mrs. Chihera, who was a member of the Chiriya rotating credit club. From her proceeds from the credit scheme she started her freezits[87] and sweet making project.

Case study 19: Making and selling sweets

Mrs. Chihera said that she had started her own project by buying and selling freezits until she branched into sweet making. She reported that, apart from the interest she obtained from the rotating credit scheme, part of her initial capital was acquired from the sale of part of her maize and rice allocations from the wetland project in 1999 and 2000. She had then saved money from her sales of freezits and had begun to buy the ingredients, pots and trays needed for her sweet-making business. During the time I was in the village doing fieldwork, I often observed her selling her products at the local schools and at ward gatherings. She reported that the money earned from her business helped in paying her children's school fees and for purchasing groceries.

Picture 58: Boiling sweet ingredients

Picture 59: Pouring sweet mixture in trays

[87] Frozen drinks packaged and sold in small plastic bags

Picture 60: Removing sweets from the tray after cooling

According to Mrs. Chihera:

> The wetland project opened our eyes. We were just women mainly doing our housework and then going to the dry land farms; but when the project started, we realised that there was more out there but only if you got yourself involved…. We also shared ideas with many women on how best to make money for ourselves as women…. We started seeing a lot of options for local women and it was like our eyes were opened. The wetland project was the beginning of many projects for women who wanted (laughing). Some of the women were lazy and when the project was not doing well, they simply went back to their homes and continued with their usual daily chores and lost out. The clever ones (laughing), yes like me and other women, because we had tasted the money and benefit from the wetland, decided to form clubs and even start our own businesses… I started the freezits and sweet making business…. Some of the women tried to copy me but after a while their sweet making businesses just ended. I had taught them but I am sure they were did not have easy access to the ingredients. You know these are bought in town: like citric acid, tartar and the colouring powders.

The case of Mrs. Chihera shows that, although the NGWP resulted in only short term direct economic benefits, for both women and men, it had also laid the foundation for income generation for at least some women. For some of those women, the benefits were eroded by the collapse of the project, while others among them managed to hold onto their benefits and they began to explore various ways of ensuring that their role as providers for their households was not lost. While some, like Mrs. Chihera and women in Chiriya village turned to rotating credit clubs and nonfarm activities, some of the other women who had been members of the wetland project turned to other agricultural projects in a bid to improve their food security status as I now illustrate.

7. Informal wetlands women: Agricultural spin offs

I discussed the transfer of technology from NGWP to individual households' informal wetlands in Chapter VI. Of significance here is that those transfers had positive spin offs for women whose families adopted the technologies. Two such women were Mrs. Moyo (case study 5) and Mrs. Maziva (case study 6) both of whom were members of households in my informal wetland case studies sample. Their husbands had adopted aspects of the *Ngwarati* technology on their wetland farms, and their doing so had enabled their wives to become actively engaged in the gardens. Both women's husbands had allocated them ridges and furrows in their wetland gardens where they had some freedom as to what crops to plant. They both used these ridges for planting vegetables for household consumption and also for selling surpluses to their neighbours and other Mufiri residents, the cash income from which they were able to utilise at their own discretion.

Their daily routine was centred mainly on the upkeep of these gardens. Mrs. Maziva grew mostly *covo* vegetable which she sold to fellow villagers. Mrs. Moyo grew mostly potatoes, onions, beans, peas, tomatoes and carrots for all of which she had a ready market among teachers at the local schools. On Mondays, she would travel to the schools and take orders for vegetables that she then delivered to teachers on Friday mornings. Most of the teachers travelled to their urban homes on Fridays for the weekend with their families and they were thus able to take vegetables home with them. Two teachers I interviewed said that Mrs. Moyo's vegetables were cheaper than in the urban areas and hence there was a high demand for them from the teachers at the primary and secondary schools.

Picture 61: Mrs. Moyo showing off some of the carrots harvested from her allocated ridges and furrows.

According to Mrs. Moyo:

> Adoption of the *Ngwarati* allowed for more farming space either on the furrows or ridges where one could plant various crops.... My husband allocated me a small section in the wetland garden and I decided to plant vegetables for selling. This is my full time job. I spend most of my time in the wetland garden. Most of the villagers come to buy from me but I also sell to the teachers. It is a viable market for me and each week I make an average of ZIM$700 000 (US$20) and I use that money for groceries and for the children. I no longer have to be asking my husband for money all the time.... I can make my own decisions on what to buy and when to go to the grinding mill because I have some money with me.

Mrs. Moyo made similar remarks about the benefits of adopting the *Ngwarati* technology and pursuing small-scale cash cropping. She said that her section of her household's wetland garden presented her with a 'regular source of income'. Mrs. Moyo and Mrs. Maziva agreed that, despite the high labour demands of the wetland gardens, they were happy with the benefits they had accrued, especially since it gave them a degree of economic independence.

Importantly for this thesis, moreover, the cases of Mrs. Moyo and Mrs. Maziva show that there were some positive spin offs from the NGWP, not only for women project members but also for women in the informal wetlands who had not been members of the bigger communal project, but whose informal wetlands had been modified in terms of *Ngwarati* technologies.

Further, and as I have already shown in previous chapters, some women who had been NGWP members later joined other agricultural projects like the Mufiri Consolidated Garden (MCG), which I discussed in detail in Chapter VII. By their doing that they both demonstrated that they had learned the benefits of being involved in such projects and that they wished to continue to exercise a degree of independence in generating income apart from that created on household fields.

8. Village and Ward Politics: Women as players

The NGWP not only brought a degree of economic independence for women; it also presented an opportunity for women to be involved in local politics. Through involvement in the workings of the NGWP, women project members gained exposure to development processes and some became bold enough to contest local politic office. Of interest was the race for the ward councillorship that occurred in Mufiri in 2006. According to the ZANU PF political leadership at that time, only women were supposed to run for this post because of affirmative action in the selection of candidates.

In the ZANU PF primary elections, two of the three contestants were from the NGWP. As has been already shown in Chapter V, Mrs. Mataka won the seat, after extensive campaigning that involved mobilising the support of other women in the ward, but especially those involved in the wetland project. During the run-up to the elections, most discussions in the ward's villages, and especially in the NGWP, had centred on the election race as it was the first time that women were contesting for such 'high office' in Mufiri. For wetland members, they were lost for choice as two of their members were contesting, and both were residents in just one village. The word among the women was *'takapinda mu project chero nematongerwo enyika tavemo'* (we joined the project and now even in politics, we are now in). The election was won by Mrs.. Mataka who, when I discussed it with her, attributed her election to her exposure to the wetland project and to her having learned how to understand the dynamics of development. She also attributed her success to support she had received from other women members of the wetland project.

Picture 62: New woman councillor shouting a slogan during a New Gato Primary School speech and prize-giving day

However, this landmark victory for women's political empowerment did not go unquestioned by local men, and some local women too had doubts about it. The main questions that were asked centred on whether a woman councillor would be able to bring development to Mufiri ward. Was she capable, as a woman in a world dominated by men, to bring real change? Did she have the strength and aggressiveness of a man to ensure that development came to Mufiri? Could she, as a woman, tackle the 'big' development issues that even some male councillors had failed to address in Mufiri? Did she, as a woman, have what it takes to bring change in the dry and poverty-stricken ward? Because of erratic rainfall, local people also asked whether she would be able to bring food aid to Mufiri.

For most men, the answer to most of their questions was 'no' because they believed that the position of the councillor was a job for a man and not a woman. However, most women I interviewed believed that if, as women, they were playing a major role within the households, the elected woman councillor could also bring development and change to their ward.

9. Negative Effects: Women that lost their benefits

Despite the NGWP's positive spin offs for some local women, there were others who experienced negative effects, especially as regards their sense of autonomy. Some women actually found themselves worse off after the collapse of the project than they had been before the project had been implemented and drawn them in. One such was

Mrs. Shava, a widow of about 70 years of age. Before the implementation of the NGWP, Mrs. Shava had had a small wetland garden that was incorporated into the NGWP site – thus making her one of just four people that lost part of their farmland to the project. According Mrs. Shava:

> Before the wetland project started, I had a small garden on the same site that was used for the project. You know, near the well…. I used to plant vegetables, rice and maize. I used to sell the vegetable to other villagers. I had used this small garden for more than 20 years…. When rumours of the wetland project were circulating, the AREX officer and other local leaders approached me over the use of the garden. They said that the garden fell within the proposed site of the new project…. I was hesitant to give away my garden but I was assured that I would become a member of this project and I could still benefit or even benefit more….After a lot of hesitation and thinking, I agreed and gave away my garden, but I was not compensated with another piece of land for my garden. Even some of the [other] people who gave part of their land to the wetland project were not compensated…. During the project, I benefited from the harvest allocations that I was given as a member. However, this was only for a short time as the project started having a lot of problems and conflict and I decided to quit the project…. I have lost even more now because I do not have my small garden anymore, and there is nothing coming from the wetland project while I did not get compensation for my [expropriated] garden. At the moment, I do not have a garden to plant my vegetables and I am now too old to start looking for a new place to start a garden.

Picture 63: Mrs. Shava: 'I lost my wetland garden'

Mrs. Shava's case shows that the collapse of the project left some women worse off than they had been even before the project was initiated. Mrs. Shava lost her garden and a source of food supplies that she had relied on for years. She now had to buy vegetables from other villagers and grew only the seasonal vegetables that are inter-

cropped with maize during the rainy season – something she did now on her dry land field.

That some women lose benefits in the wake of a development project and intervention has been illustrated by Webb (1991) who gives an example of women who became involved in an irrigation rice project in Gambia and gave up their swamps for rice cultivation in the process. Webb (1991:342) shows how some of these women 'insisted on access to private plots in the project itself…38 percent of women received cash payments for their labour' and yet '28 percent of women were not remunerated for labour to communal fields' (Webb:1991:342).

In the case of the NGWP, its collapse meant that the benefits that all the members were enjoying came to an end. However, as shown in some of the case studies presented in this chapter, the collapse had diverse impacts on its various members. For some women, it meant the erosion of or an end to their newfound degree of economic autonomy – something that they had achieved during the first couple of quite successful years; for some women the project's collapse meant the beginning of an even greater number of opportunities than they had been able to choose from in the past – particularly as they hung onto whatever benefits they had acquired from the NGWP.

One question that emerged was why some women hung on to their benefits while others lost all and, for a few, even became worse off. The reason for this was in sociological differences of the women. Table 20 shows a summary of the sociological differences between women that held on to their benefits and those whose benefits were eroded.

Name, Age & Marital Status	Education Level	Resources*	Political affiliation	Social Status	Farming Skills	Benefits
Mrs. Mutsa (40) Married	O' Level	9	Chief's Family & ex-councillor's wife	High	Master Farmer	Upheld
Mrs. Magumbo (60) Married	Standard 10	7	Village headman's wife	High	Master Farmer	Upheld
Mrs. Manyati (48) Widow	O' Level	6	Local Party committee member	Averag e	Master Framer	Upheld
Mrs. Chihera (39) Widow	O' Level	8	Close ties with Chief's family through in laws	High	Skilled Farmer	Upheld
Mrs. Shava (65) Widow	Standard 2	5	None	Low	Average	Lost
Mrs. Kuenda (39) Married	Form 2	3	None	Low	Average	Lost
Mrs. Matombo (68) Married	Standard 1	4	None	Low	Average	Lost
Mrs. Chitauro (42) Married	Grade 7	2.5	None	Low	Average	Lost

Table 20: Sociological differences among eight NGWP women members who lost or held on to their benefits

*Resources: I measured the resources of women using a scale of 10 in order to assess what other resources were available to them. Resources measured included cattle, remittances, agricultural projects, income generating projects, availability of labour for household and farming activities, extension services and support, poultry, attendance at area farming meetings and assets at home.

Feminists have long argued that women do not constitute a homogenous category let alone a group, with the consequence that technology transfers or development projects affect individual women differently. The disintegration of the NGWP meant that women adapted differently to its collapse. Sociological differences, as highlighted in Table 20, show that, on one hand, women who were literate or educated, with political affiliations, resources, sound farming skills and outside exposure where able to hang on to their benefits and pursue other projects. On the other hand, women who were older, poor, lacked resources, and did not have much exposure and strong political affiliations were not able to maintain their benefits. For some, such as Mrs. Shava (pictured above), they were left worse off than before the NGWP.

10. Women's benefits: At what cost?

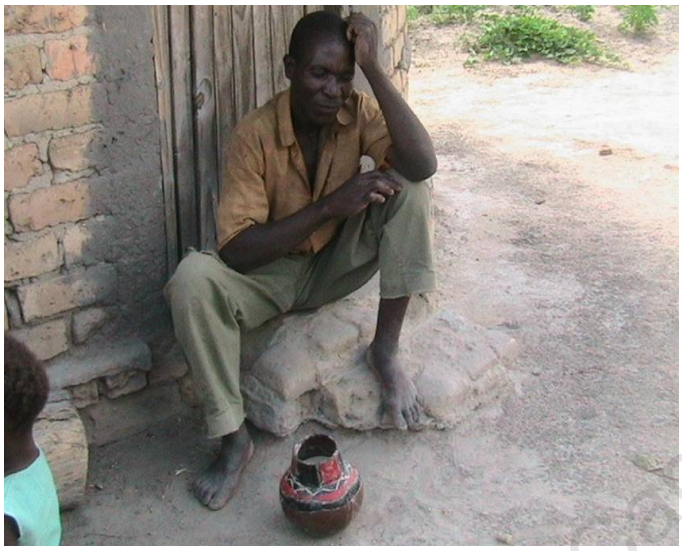
Women's role as autonomous providers and their consequent economic status presented challenges and costs for both men and women in Mufiri. As women joined various outsider-initiated projects, including the NGWP, it meant an increase in their workload. Women project members attended all the NGWP related activities including meetings. According to the male project members, moreover, it was unproblematic for them to send their wives or daughters-in-law to go and work on their behalf. For the women, however, it was difficult if not impossible to send their husbands to go and work on their behalf in the wetland project.

The majority of the women I interviewed agreed that attending wetland activities did not mean that they were excused from their rain fed farming obligations. For single mothers and widows in particular it meant they still had to put 100 percent into their dry land activities, on top of their wetland project duties. For the married women, they were not excused by their husbands from farming activities on Tuesday mornings when they went to take part in wetland project work and activities. When the project started to disintegrate, however, the women reported that men complained about their spouses going for wetland activities and, because of the smaller yields, some women were prohibited by their husbands from attending further wetland project activities.

Women in informal wetland-owning households also complained of the increase in their workloads because of the high labour demands of wetland agriculture. Moreover, joining more new projects meant that they had to spend ever more time on various project activities; at least that was the experience for most such women. For example Mrs. Mutsa (case study 1) joined the MCG project and was also a member of the NGWP. Mrs. Mutsa said that she had to plan her activities carefully as she also still needed to attend to her other domestic chores and rain fed farming activities.

Involvement by women in the NGWP also resulted in strained relationships with their spouses, especially where that woman was a project member and spent time working there, while the other, the husband, was excluded. Selling crops from women's wetland allocations presented a very particular kind of challenge – over the control and use of income generated. This was also a phenomenon found in informal

wetlands where households that had adopted the *Ngwarati* technology generated a lot of cash from their sales of vegetables and other crops. Some married women from both the dry land and informal wetland areas of the ward spoke of how their men always wanted to have a share of this income, even if they had not been involved in generating it. The problem, women complained, lay in the way their husbands would use such readily available and disposable cash on beer drinking.



Picture 64: Informal wetland farmer enjoying some traditional beer

Some of the women with whom I discussed the issue explained that they had had intense arguments with their husbands over the use and control of money they had generated from their wetland activities and from other projects too. Mrs. Maziva (see case study 6), said she had had to resort to hiding money from her husband. She explained that

> *Chakachenjedza ndochakatanga* (Shona proverb meaning what makes one wiser is past experience) because when I married my current husband I was very naive... We would make money from the sale of vegetables and just keep it where the two of us had access to it. I soon realised that most of the money we were making was being taken by my husband for his beer drinking escapades (pauses and then laughs)… That is when I realised that we had a problem because, when I wanted to buy groceries or go to the grinding mill, the money I thought was there was not there anymore… I then decided that I had to be clever, and so I started to sell vegetables but not to put all the money in the common place. I began to hide some of the money and I still do so because he left me with no option… I know he does not trust me completely because he keeps saying 'Woman, is this all the money' (she laughs) and I just say 'yes', knowing that I have some money hidden somewhere; because when a child falls sick it is my responsibility; and even for making sure I have salt and other things for my family.

This case illustrates the lengths some women had had to go in order to attain and maintain their small degree of economic independence and autonomy. In a focus group discussion with women, those attending concurred that a women had to engage in a series of diverse projects and had to keep some money secretly hidden away from their respective husbands in order to ensure the survival of their households. Responses from another FGD revealed that, just as women had begun to claim their independence, they found themselves treading into areas that were previously the domain of men. Some women in the same FGD added that in their households, where previously there was harmony and trust, elements of jealousy, lack of trust, arguments and strained relationships had arisen as their relative freedom to engage in their own economic activities had increasingly given them opportunity for greater autonomy from their menfolk. Indeed, as Mrs. Mutsa commented, as women in Mufiri had begun to contribute to household income and food requirements, some women started to disrespect their men, and that in turn had created antagonisms and tensions too.

The involvement of women in the NGWP as shown above had implications for gender relations in Mufiri, both at project and household levels. This was similar to that described by Sharp and Spiegel (1990) in their analysis of gender and control of income in the Matatiele and Qwaqwa areas in South Africa. They assessed how patriarchal attitudes and authority shaped gender relations, especially when women from the two areas began to earn money through farm wages and opening up of shebeens. They noted that some of the women who were being paid wages became less submissive to their husbands. Sharp and Spiegel (1990: 530) explain that households became 'sites of contestation' as women became economically empowered and began to challenge patriarchal authority – something that is shown to have occurred in Mufiri by the data presented in this section: As some women became involved in the NGWP and other economic ventures in Mufiri, their households also became 'sites of contestation'.

11. Conclusion

The implementation of the NGWP presented various avenues that enabled local village women in Mufiri to gain some degree of freedom from patriarchal constraints. In doing that it provides evidence that enables one to challenge common arguments in gender studies circles in relation to women and the introduction of new technology.

One such argument is that 'while technologies of different kinds, in varying contexts, offer opportunities to challenge existing barriers to economic, social, and political participation, they can consolidate or worsen existing power imbalances' (Porter *et al* 1999:2). The Mufiri evidence both supports and challenges that assertion: the NGWP and other changes such as the requirement that a woman be elected as councillor showed that gender imbalances were being challenged; yet even then the evidence is that, for some women, the changes were either short lived or eventuated in a worsened situation for them.

Narciso and Enriques (2010:50), in their analysis of women and land in East Timor have argued that 'in many situations, the impact of development policies and programmes are biased against gender equality due to the different roles assigned to each gender.' The experience of women in Mufiri, at least during the initial years of the NGWP, was that, as members of the project, they benefited from their participation in the NGWP. Yet, as indicated, the inclusion of women in the project did not result in an extensive overhaul of existing gender relations in the area at large; it resulted only in a slight shift in gender relations, and sometimes threats of reversals as men became ever more cautious of the new actors in the development arena.

The data presented in this chapter show that women project members benefited mostly during the early and successful years of the NGWP that at least partially empowered them. Kabeer (2001: 18) defines empowerment as 'the processes by which those who have been denied the ability to make choices acquire such ability'. However she also points out that it is difficult to measure or quantify levels or degrees of empowerment. The inclusion of women in the NGWP gave them rights to make decisions within the project, although at varying levels and with varying degrees of success. Moreover the resources which were allocated to them enhanced their autonomy, economic independence and decision making powers, both at household and project level, again suggesting some sense of their empowerment in Kabeer's (2001) terms.

The collapse of the NGWP resulted in both positive and negative spin offs as some women hung on to the benefits they had accrued and others lost those benefits, in some cases leaving them worse off than before the implementation of the project. According to Iddi (1999:76), the introduction of new technology can affect the 'roles

and responsibilities of women and men and their multiple needs and priorities'. In terms of the negative effects of development on women, a study of the Project Agro-Forestier (PAF) in Burkina Faso revealed that 'women lost more than they gained from PAF as the technology promoted by PAF consumed a significant amount of women's energy and time' (Iddi 1999:77). Projects such as the PAF project and the NGWP may indeed result in both negative and positive effects for female project members.

The above shows that, while the NGWP began a process of moving towards gender equality in Mufiri, it was very limited in that regard and much remained to be done to ensure that 'the relationship between gender equality and sound economic development becomes more visible' (Serefjord & Olsson 2001:10). According to Masika and Joekes (1996: 2), 'gender equality is a multi faceted concept which implies equality of opportunities in the legal, political, social and economic dimensions as well as equality in personal relationships between men and women'. From the data presented in Chapter VIII, gender equality is something that may be achieved in the long term but not in the immediate term due to patriarchy and other inequalities that exists in Zimbabwe.

IX: CONCLUSION

> 'Success and failure are policy oriented judgments that obscure project effects.' (Mosse 2005:19)

1. Introduction

As one looks at development discourses, the one question that comes to mind is: does development work? I have pondered that question throughout the journey of researching and writing my thesis. My analysis of the *Ngwarati* tillage system, its application in the New Gato Wetland Project, and its effects on local livelihoods in the Mufiri ward of Zimbabwe's Shurugwi District, has helped me to shed light on and to find answers to that larger question through a consideration of the research questions posed. This study has focused on the effect of the *Ngwarati*-based New Gato Wetland project on local livelihoods, on the different kinds of farming practised in Mufiri ward and on gender relations. In writing this thesis, my research objective has been both to document those effects, and the constraints on them, and to use them as examples whereby I can critically analyse and explore the ideas postulated by post development critics – in this instance in relation to the success and failures of the NGWP. I have also sought to identify and give evidence of positive spin offs from the NGWP in order to support my critique of some aspects of post-development arguments.

As shown in previous chapters, my work has demonstrated that development is not simply the empty or deceitful mirage or illusion that some post-development protagonists describe it as being (Rahnema 1992). Despite their limitations and shortcomings, and indeed even when they fail to achieve their stated goals, development interventions do have the potential to produce some positive benefits that accrue to local people. I have shown how this was the case with the New Gato Wetland Project, and I have identified and cited other authors who have come to a similar conclusion (Crewe 1997; Mosse 2005) in regard to other development interventions elsewhere in the world.

What is important for people in Mufiri, as elsewhere, is that development projects have been introduced into their lives and that their lives have been changed and in some cases improved through those development projects, even when the projects

themselves have failed and collapsed. To write about such development projects without recognizing and commenting on those positive spin offs would be to write an incomplete story, especially if it failed to comment about the experiences of those men, women and children, who have, along with their households and families, benefited from such development interventions. I thus agree with the sentiments expressed by Jakimow (2008) in response to the post development critique that he calls 'reflexive development'. By that Jakinow means that scholars and development practitioners should reflect on development processes rather than totally discard the whole idea of development.

2. Implications of Findings from the NGWP on the Post Developmentalist Perspective

2.1 Shortcomings of the project

The main argument of the post development critique has been that, despite the efforts and stated aims of development to bring social and economic change, it has done more harm than good to people in Third World countries (Berg 2007). Indeed, some scholars, like Matthews (2004: 377), have claimed that 'the causes for disillusionment, especially the many broken promises, are highly evident in Africa'. There is apparent consensus among post development critics that nothing good has come from the development process or from development interventions driven by outside agencies, even those which claim to be motivated by local concerns and interests and that claim to work in a thoroughly participatory manner (Ferguson 1990; Kothari 1990; Alvares 1992; Sachs 1992; Rahnema 1992; Escobar 1995; Illich 1997; Bologna 2008).

Development is thus heavily criticised on the basis of, among other things, environmental destruction, broken promises, cultural homogenisation and Westernisation (Berg 2007; Matthews 2004). As has been mentioned in Chapter I, some of the criticisms focus on issues of power and control over the development process (Crush 1995; Escobar 1995; Ziai 2004). As a result of such criticisms of development, the post development school of thought has bluntly rejected development theory and practice and has labelled it a 'eurocentric discourse, an imperialist project and a meaningless concept' (Ziai 2004:1045).

The decline of the NGWP, as presented in Chapters IV and V, shows some of the shortcomings of development interventions that have been criticised by post development scholars. For example, when one looks at notions of power and development, the concerns expressed by Crush (1995) were confirmed by data relating to the implementation of the NGWP. Chapter III shows that, although the project embraced notions of community participation, it nonetheless operated through a top-down management structure and that there was minimum consultation with the residents who were also not involved in the conceptualisation of the project. Yet in the end, members of the NGWP began to challenge the authority and exercise of power of the AREX officer, in a bid to take their place as the owners of the project. Just as Crush (1995) argues about power in development, I would contend that control of the project did not lie with the members of the NGWP but rather with the external officials and donors who had implemented the project.

The collapse of the NGWP again confirms, to a certain degree, the criticism of development initiatives as being a failure or mirage (Rahnema 1992). In Chapter IV I have shown that, despite the NGWP's initial success, the project collapsed and could no longer even hope to meet the intended goals of food security and income generation for its members. After 2004, the NGWP was disintegrating and what was once hailed as a successful project (albeit inappropriately because of its dependence on donor funding), stood crumbling in the face of problems such as the withdrawal of funding, erratic rainfall and conflict. A quick glance at the collapsed project would make one question the prudence of undertaking development initiatives. For example in Chapter VIII, I have shown how some women were left worse off by the NGWP. After the project collapsed these women's situations were eroded further, leaving them in a particularly unfavourable position. The collapse of the project, and the erosion of benefits and indeed of opportunities for some members, was a shortcoming of the project which validates many of the concerns of post development scholars.

As has been shown in Chapters IV and V, the decline of the NGWP was a result of internal and external problems. Post development scholars argue that failures of development initiatives lie in external causes; but, as I have shown in Chapter V, internal causes such as social tension and local political processes also have negative effects on such projects. Projects do not exist in a social vacuum and pre-existing

power dynamics seem always to have implications for the outcome of any intervention. Myriad problems led to the collapse of the NGWP. Such negative outcomes would validate the claims by post development scholars who argue that such development projects almost inevitably fail.

A closer look at the positive outcomes of the NGWP, however, leads me to agree with Mosse (2005) and Simon (2006) that it is not enough to just say that development has failed. Such a description of development overlooks all the positive outcomes that might derive from the development process.

2.2 Positive outcomes

A denial of some of the benefits that have accrued as a result of development does not in the end give a balanced view of the development process. It is true that development theory and practice brings its own challenges, but the small successes it has scored must not be disregarded. Rather, they must be acknowledged and recognised for what they might exemplify. Other scholars have criticised post development contributions for failing to give a balanced view of development theory and practice. Ziai (2004) gives a summary of the five main criticisms that have been levelled against a post developmentalist perspective.

The first criticism, based on Kiely (1999)'s work, argues that post development has romanticised local communities and their cultures, particularly the view that these cultures can play a role in alternatives to imposed development. The second criticism centres on post development and its 'complete rejection of modernity and development [which, it is argued] ignores the numerous positive aspects undoubtedly closely related to them' (Corbridge 1998:145). Thirdly, post development has been criticised for embracing notions of cultural diversity and thereby legitimising some of the negative aspects found within various cultures (Knippernburg and Schuurmann 1994:95). The fourth criticism is based on Cowen and Shenton (1996) work which viewed ideas such as those found in the post development corpus as just another authoritarian concept, similar to development itself and one whereby people are still told by outsiders how to live. Last but not least, post development critics have themselves been heavily criticised for advocating alternatives to development but not actually offering any 'alternative methods for social change' (Ziai 2004:1050). This

point is further reinforced by Nederveen Pieterse (2000: 188) who argues that post development is just a 'critique but not a construction'.

For the purpose of my thesis, my argument builds upon the second criticism, by Corbridge (1998), which challenges post developmental perspectives on the positive effects of development. I have used the single case study of the NGWP to give evidence of some positive aspects of development which should not be ignored. As I have shown in Chapters IV, VI, VII and VIII, there are some positive outcomes that may result from development projects such as the NGWP. In Chapter IV, I have shown how project members benefited during the initial successful years. Data from the case studies show various ways that members benefited from participating in the project. Participating households benefited through an increase in food supplies, income generation and acquisition of wetland farming skills and knowledge.

In Chapter VI and VII I have illustrated how technology was transferred from the NGWP to informal wetlands and dry land farms. Even though the NGWP was collapsing, some farmers were able to use techniques that they had acquired and learnt from the *Ngwarati* technology. Case studies from informal wetland and dry land sites have shown various dimensions of how local people were benefiting from the NGWP development initiative. Even though the project itself constitutes a gloomy picture in terms of sustainability, it had far reaching effects that were proving to be sustainable. Given such a scenario, as portrayed in Chapter VI and VII, it becomes difficult to label this particular development project as a total failure, especially when local people testified that they had benefited from the development initiatives and were keen to continue applying the skills and knowledge that they had accrued from the NGWP.

In Chapter VIII I have illustrated how some women benefited from their involvement in the project. The NGWP also had some trickle-down effects on women working on informal wetland and dry land sites. The project gave women a new found sense of at least partial autonomy and economic independence. Some of the case studies I have presented in Chapter VIII show some of the positive outcomes of development, even though some women were left worse off. Over the years, gender has been closely been intertwined with development issues (Kabeer 1994; Parpart *et al* 2000). Although gender parity was not a primary focus or goal of the NGWP, some women

became members of the project and, as they became more involved in the development initiative and public sphere, the patriarchal systems that had previously constrained them began to be challenged. The NGWP did not overhaul those patriarchal systems; but it did result in slight but positive shifts in gender relations in Mufiri. After the collapse of the NGWP, women became actively involved in various other income generation projects, politics and development of their ward as a whole.

One cannot ignore such unintended but important side effects of the NGWP as a development project. The NGWP is an example of how women have been integrated into the development process resulting in positive benefits for at least some women and in shifts in gender relations. The inroads that have been made in terms of gender relations must thus be acknowledged. If development was simply dismissed as a disaster, all the positive aspects in terms of gender would be overlooked. The gender dimension as illustrated in my thesis shows again that development has not just been an illusion but a reality in the lives of the men and women who participated in the project. It changed their lives and produced positive outcomes for almost all of them. Calling for an outright rejection of all development interventions becomes counterproductive in terms of the circumstances of people on the ground.

Totally labelling development as a failure takes away the opportunity to learn and build upon the positive aspects that have come out of some development projects. The case study of Mufiri Consolidated Gardens (MCG) that I present in Chapter VII is a good example of how, with the disintegration of the NGWP, local people were able to build on what they had learnt from the NGWP. The MCG was operating fairly well, something members attributed to lessons learnt from the NGWP. In the same way, development theory and practice can be improved by building upon both the positive and negative outcomes of development interventions.

My focus and perspective on the New Gato Wetland Project demonstrates the importance of critically engaging with development theory and giving a balanced view of both the positive and negative outcomes of development, something that I believe is lacking in most post development critiques. A holistic approach in the analysis of development initiatives such as the NGWP has helped to give a more balanced picture of the effects of development on local livelihoods.

The positive spin offs from the NGWP, such as the empowerment of women and the ability of farmers to apply the techniques learned from the project to their own fields, provide a lesson that those involved in the so-called 'development industry' perhaps need to learn. If the stated goals of development projects, such as the provision of a sustainable and increased food supply, invariably fail, how can development projects be structured so that the positive spin offs are their actual goal? As this case study has demonstrated, perhaps development practitioners have to allow for individuals such as local farmers in Mufiri to use their creativity and knowledge to make their lives better, and thus such practitioners need to facilitate this kind of process. The individual agency of some local farmers enabled them to make the best of the opportunities that were presented to them via the NGWP, despite the failure of the project to meet its stated development goals. Surely, that lesson is one that development practitioners can use and build on – or is the power relation between practitioners and donor agencies one that precludes the former from doing so?

3. Conclusion

The whole journey that has resulted in this thesis, has taught me the importance of critically looking at development theory and practice through lenses that are not only critical but also seek a balanced perspective on development interventions such as the NGWP. Unlike the post development school of thought that has given a one sided critique of development, my thesis has tried to show that, despite the shortcomings of development projects, there are positive outcomes that must acknowledged. The story of development would not be complete if these stories are masked under 'policy oriented judgments' such as project 'success or failure' (Mosse 2005:19). When we use such overarching labels, the positive aspects of a project, even if they are few in number and small in impact, are obscured and subsequently go unreported. Even though the NGWP collapsed, my study has presented evidence of at least some successes that cannot be ignored. Such evidence is critical in challenging some of the common threads of arguments that are current in the post development school of thought. Whether the outcome of development initiatives has been negative or positive, or both, let both sides of the story be told so that a complete and balanced picture of development is documented. The lessons learnt from such projects as the NGWP must be taken into account and used to build better 'development' – both in theory and in practice.

APPENDIX I

Livelihood Analysis Questionnaire

1. Name of Interviewer _____

2. Date of Interview _____

INTERVIEWEE DETAILS

1. Name _____

2. Surname _____

3. Age ☐ Date of Birth -----/-----/-----

4. Sex Male ☐ Female ☐

4b. Marital Status …….

4c. No of children ……... No of household members ……

5a.Totem _____

5b. Residential Address

Livelihood Details

6. What are the livelihood activities that you are pursuing as a household?

---

7. What are your main sources of income?

---

8. What income generating and farming projects are you involved in?

---

9. What are the main assets that you have at the household?

Assets	Control			Access			Benefits		
	male	female	both	male	female	both	male	female	both

10. What are the main activities that are carried out by yourself and other household members?

Main activities	Men	Women	Children

11. What livelihood challenges that you are currently facing?

---

12. What are the main food items consumed by your household?

1.
2.
3.
4.
5.
6.
7.

13. Have there been any changes in livelihoods in this community during the past 10 years

Yes ☐ No ☐

13.b. If yes, list the changes and factors

Changes	Factors

14. Who are the stakeholders that are operating in the community?

1.
2.
3.
4.
5.

15. What is generally being done (by all stakeholders) to improve general livelihoods in the area?

Stakeholder	Activities

Wetland Details

16. When did you join the wetland project? ----------
17. Are you a committee member? ----------

16 What is your personal evaluation of the success and failure of the project so far?

Successes	**Failures**

18. What have you used all your vlei harvest for over the past few years?

	Selling	**Consumption**	**Barter Trade**	**Seed**	**No Harvested Crops**	**Other (Specify)**
Rice						
Maize						
Sweet Potatoes						

19. If you sold your crops what were the benefits you accrued?

……
……
……
……
……
……
……
……

20. Do you have any assets, livestock, poultry that you have acquired from benefits or income from vlei activities?

……
……
……
……
……
……

21. List any other things that you have benefited from being involved in the New Gato wetland scheme

……
……
……
……
……
……
……
……

APPENDIX II

WETLAND MEMBERS INTERVIEW GUIDE
ACTIVITIES

The researcher will carry out in depth interviews with individual NGWP members. The following questions will be asked:

- What has been your involvement in the project from its implementation to the current year? To probe on membership, leadership, labour and activities.
- Productivity: What have been the yields over the past seasons for the NGWP?
- What are the successes and failures of the NGWP?
- What are the benefits that have accrued to you as a member of the NGWP?
- What have been the disadvantages and problems faced by NGWP members?
- What are the advantages of wetland farming compared to rain fed farming?
- Did the project improve people's livelihoods?
- What are the challenges that current NGWP members are facing?

APPENDIX III

Project Constitution

1. **Name**: The name of the cooperative will be New Gato Wetland Development Scheme located in Mufiri Ward, Shurugwi District in Zimbabwe.
2. **Aims and Objectives**: The cooperative aims to offer its members the opportunity to be involved in an agricultural wetland project that will help:

- To promote food security in Mufiri
- To ensure household food security
- To promote proper utilisation and management of the wetland
- To promote marketing of crops and hence income generation

3. **Membership**

- Membership is open to farmers residing in Mufiri ward
- The responsibilities of all members shall include attendance, participation in all wetland related activities and attending all meetings.

4. **Subscription and Finance** (Amended in 2001)

- A membership fee is required from all cooperative members
- Members will pay a yearly membership fee of Z$3000
- A bank account will be opened and three project members committee will be the signatories

5. **Committees**: The cooperative will have two committees, the project committee and the workers' committee.

- The project committee will include a chairperson, vice chairperson, treasurer, vice treasurer, secretary and two committee members.

Title	Duties
Chairperson	• Coordinating wetland activities and meetings • Chairing project meetings
Vice Chairperson	• Assisting chairperson to coordinate project activities • Chairing wetland meetings in the absence of chairperson
Treasurer	• Managing project funds • Collecting subscriptions and fines • Preparing & presenting financial reports
Secretary	• Taking of minutes during meetings • Keeping a record of all wetland related information • Keeping the membership and attendance register
Committee Members	• Attending committee meetings • Assisting in all project related matters

- The workers' committee will include a chairperson and a vice chairperson.

Title	Duties
Chairperson	• Allocation of work roles to wetland members for all wetland related activities. • Keep track of all labour requirements for the project.
Vice Chairperson	• Assisting the chairperson with labour related issues for the wetland project

6. **Election of committees**

- Election for various committee members will be held after 3 years, which means every third year elections will be held.
- All members are eligible to stand for elections

7. **Activities**: Tuesday is the day that all activities pertaining to the project will be done. An additional day may be agreed upon by members when deemed necessary. All members will participate in the following activities:

- Clearing of the wetland
- Ploughing
- Planting of crops
- Weeding
- Harvesting of crops
- Training sessions
- Any other activities agreed upon

8. **Meetings**

- The project committee will meet once a month or if there is a need to meet.
- Cooperative meetings will be held once a week during the day [Tuesday]allocated for wetland activities
- An Annual General Meeting will be held at the earliest convenience at the beginning of each year. The purpose of the meeting is to report on the previous year activities and plan for the New Year.

9. **Discipline Procedures** (Amended 2001)

- A member who does not attend planned wetland activities will be fined Z$50 for each day. The fine will be reviewed annually.

10. **Changes to Constitution**

- Amendments to the constitution will be made when necessary
- All members will be involved in the decisions and processes to change the constitution or sections of the constitution.

Declaration

The New Gato Wetland Development Project, its committee members and activities shall be run in accordance with this constitution.

Name:_____Position_____Signed_____
Name:_____Position_____Signed_____
Name:_____Position_____Signed_____

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